

Report on Refrigerating Machinery and Appliances.

Date of writing Report **Oct. 31st, 1944**When handed in at Local Office **Oct. 31 1944**

Received at London Office

MONTREAL, P.Q.

No. in

Reg. Book.

Survey held at **Montreal, P.Q.** Date: First Survey **July 26th.** Last Survey **October 13th, 1944**

74209

(Number of Visits **13**)on the Refrigerating Machinery and Appliances of the **S/S "EMPIRE TALYSMAN"**Tons { Gross **7000**
NetVessel built at **Port Glasgow**By whom built **Lithgows Ltd.**Yard No. **997** When built **1943**Owners **Ministry of War Transport**Port belonging to **Greenock**Voyage **-**Refrigerating Machinery made by **J. & E. Hall Ltd.**Machine Nos. **11356**
11357When made **1943**Insulation fitted by **Foundation Co. of Canada**When fitted **1944**System of Refrigeration **NH³ (Dir.)**
(Exp.)Method of cooling Cargo Chambers **Air Cooling**Insulating Material used **Slab & Granulated Cork**
& Rock WoolNumber of Cargo Chambers insulated **Three**Total refrigerated cargo capacity **285,644** cubic feet

DESCRIPTION OF REFRIGERATING MACHINERY. Where placed **In 'tween decks at after end Engine Rm.**

Refrigerating Units, No. of **No. of machines** Is each machine independentTotal refrigeration of ice-melting capacity in tons per 24 hours **Are all the units connected to all the refrigerated chambers.**Compressors, driven direct or through **reduction gearing.** Compressors, single or double acting **If multiple effect compression**Are relief valves or safety discs fitted **No. of cylinders to each unit** Diameter of cylindersDiameter of piston rod **Length of stroke** No. of revolutions per minuteMotive Power supplied from **(State whether of boilers, bit engines or electric generators supplying the motive power.)**Steam Engines, high pressure, compound, or triple expansion, surface condensing **No. of cylinders** DiameterLength of stroke **Working pressure** Diameter of crank shaft journals and pinsBreadth and thickness of crank webs **No. of sections in crank shaft** Revolutions of engines per minuteOil 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 minuteAir 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 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** Voltsat **revolutions per minute** Diameter of motor shafts at bearingsReduction 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**No. of coils in each **Material of coils** Can each coil be readily shut off or disconnectedWater Circulating Pumps, No. and size of pumps available **how worked** Gas Separators, No. ofGas 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 batteryAir 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**

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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 **Yes**

Are all wood linings tongued and grooved. **Yes** ~~Are cement facings reinforced with expanded metal~~

~~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. **Yes**

Are they permanently fixed or collapsible, or portable. **Nos. 2 & 3 Lower Hold Suction Trunks Portable**
all others Fixed

~~Where are the doors fitted with watertight doors~~ ~~Are the door frames efficiently insulated~~

~~Are insulating plugs applied for the doorways~~ ~~What 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 **Batteries** **Hot Gas & Atmosphere**

The foregoing is a correct description of the Insulation and Appliances. **THE FOUNDATION CO. OF CANADA LTD.**
W.H. Hunter *Supt* Builders.

Plans. Are approved Plans or Specifications forwarded herewith for the Refrigerating Machinery..... and Insulation **No**
(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. **Survey Complete.**

Note:- The capacity given below was taken from the plan on board.

General Remarks (State quality of workmanship, opinions as to class, &c.) **The insulation of the Refrigerated Cargo Spaces of this vessel has been completed in accordance with the approved plans and in conformity with the Society Rules. The required machinery and cooling down tests have been satisfactorily carried out.**

The Refrigerating Machinery and Appliances of this vessel are now complete and eligible in my opinion to have the notation of * LLOYDS RMC 10.44.

It is submitted that this vessel is eligible for THE RECORD + LLOYDS RMC 10.44. see also subsequent Report.
Roll
7/12/44

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.
2	4	Ammonia	J.&E. Hall Ltd.	1943	Dir. Exp. (1) & Air (2) Cork & Rock Wool	72	-	3	285,644

Fee \$110.00 : *Fee applied for, Nov. 3 1944*
Late Fees \$ 10.00 :
Travelling Expenses \$ 18.50 : *Received by me, 19.....*

Geo. Peddie
Surveyor to Lloyd's Register.

Committee's Minute..... **FRI 8 DEC 1944**

Assigned..... **+ Lloyd's RMC 10.44**