

REPORT OF SURVEY ON REFRIGERATING MACHINERY & APPLIANCES.

(Received at London Office)

JUN -6 1940

Date of writing Report 5th April, 1940. When handed in at Local Office 5th April, 1940. Port of **YOKOHAMA**

No. in Reg. Book. Survey held at **YOKOHAMA** Date: First Survey 14th March Last Survey 2nd April, 1940.
25725 on the Refrigerating Machinery and Appliances of the T.W.Sc. S.S. "HARUNA MARU" (No. of Visits. Two)

Gross 10421 Vessel built at **Nagasaki** By whom **Mitsubishi Zosen K.K.** When 1922-2
Net 6311 Owners **Nippon Yusen K.K.** Port **Tokyo** Voyage **Europe.**

Last Survey No. **4604** Port **Shi**

PARTICULARS AS ENTERED IN REGISTER BOOK.

REFRIGERATING MACHINES.					System of (1) Refrigerating (2) Insulating the Chambers.	POWER.		INSULATED CARGO CHAMBERS.		Notation and Date of Last Complete Periodical Survey.
No. of Units.	No. of Compressors.	System.	Makers.	Date of Construction.		Cubic feet of air delivered per hour.	Ice melting capacity per 24 hours. Tons.	No.	Capacity. Cubic ft.	
2	2	Carb Anhy	Ji & E Hall, Ltd	1922	Brine Sbal Cork	x	12	3	8,320	Lloyd's RMC 10-39

Particulars of Examination and Repairs for Complete Periodical Survey or Modified Survey.

Has the machinery been examined under working conditions **Yes** before ~~the~~ refrigerated cargo was **loaded.**

Density of brine **45** by **Twd.** hydrometer. TEMPERATURES of air at the snow box and of the return air **x** & **x**

or, delivery and return air at direct expansion or brine cooled batteries **x** & **x**, outflow and return brine **4° F** & **8° F**

atmosphere **70° F**, cooling water inlet and discharge **60° F** & **63° F**, gas in condensers and evaporators **65° F** & **-4° F**

AVERAGE TEMPERATURE in each refrigerated chamber, as per log, before discharging commenced

Port cargo chamber was reduced to **11° F**

Starbd. " " " " to **11° F**

Condenser Coils, date of last test **Port 9-38 (Starbd. 1-39)** If machinery is electrically driven, date of last examination of a generator **x**

Have all the working parts of the refrigerating machines and of the auxiliary machinery been examined **Yes** Is the spare gear in accordance with the Rules **Yes**

Have the gas condenser and evaporator ~~coils or battery~~ coil terminals, been examined **Yes** Have the direct expansion or brine cooled battery coils been examined **x**

Have the refrigerating liquid pipes, separators and receivers, and the gas return pipes been examined externally as far as practicable **Yes**

Has the insulation been examined throughout the cargo chambers **Yes** Where ~~granulated cork or similar media~~ are employed for insulating purposes, has such insulation been examined for fullness and dryness **Yes** Have the test holes been efficiently closed **Yes**

Have all bilge hatches and manhole plugs been removed, the bilges cleared, and the suction pipes, suction roses, sounding pipes and manhole door fastenings been examined **x**

Have the hatches, ~~brine pipes~~ and thermometer tubes with their connections and fastenings been examined **Yes** Have the watertight doors been examined and worked **x**

Have the brine pipes ~~or direct expansion pipes~~ been examined **Yes**, under what conditions **frosted** Have the sea injection valves been opened and examined **x**

If the Survey is not complete, state what arrangements have been made for its completion and what remains to be done **Complete.**

Now done:- **Starboard refrigerating machine and auxiliaries opened up completely, examined and found in order.**

Port machine compressor cylinder opened up, cover and valves examined and found in order.

The insulation, brine piping, thermometer tubes and connections throughout cargo spaces examined and found or now placed in good order.

The refrigerating machinery and appliances examined under working conditions and found in good condition.

Repairs:- **The thermometer tubes, which passing through the provision chambers on the upper tween deck, have been repaired by efficient insulation round the tubes and fitted with cement boxes at foots.**

General observations, opinion, and recommendation **The Refrigerating machinery and Appliances**

NOTE:- A new Date of Survey should only be recommended in the case of a Complete Periodical Survey.)

of this vessel are in good condition and eligible in my opinion to remain as classed with fresh record of Lloyd's RMC 4-40.

Fee £ **60.00** : { Fee applied for, **4th April,** 19 **40.**

Travelling Expenses £ **2.00** : { Received by me, 19

Committee's Minute **FRI, 14 JUN 1940**

Assigned **+ Lloyd's RMC 4,40**

R. Kilgus
Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

009116-009121-0266

Certificate to be sent to



Surveyed
by
Committee
standing
have been
examined

This Certificate
provide that:-
"While the
properly executed
and circumstances
to its surveyors
independent of the
to Agents of the

It is submitted that
this vessel is eligible for
THE RECORD, *Lloyds No 440*

Port Smeay

GA
12/6/40

Detach back Dept

