

## REPORT OF SURVEY ON REFRIGERATING MACHINERY &amp; 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  
25725Date: First Survey 14th March Last Survey 2nd April, 1940.  
(No. of Visits. Two)

on the Refrigerating Machinery and Appliances of the T.W.Sc. "HARUNA MARU"

Tons 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.	
2	2	Carb Anhy	J. & 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 ~~XXXX~~ 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 8-38  
 (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 other~~ 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 ~~XXXXXX~~  
 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, ~~XXXXXX~~ and thermometer tubes with their connections and fastenings been examined Yes Have the watertight doors been examined and worked x  
 Have the brine pipes ~~XXXXXX~~ 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, 1940.

Travelling Expenses £ 2.00: { Received by me, 19

Committee's Minute FRI, 14 JUN 1940

Assigned + Lloyd's Rmc 4,40

*R. H. H. H.*  
 Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

009116-009121-0266



It is submitted that  
this vessel is eligible for  
THE RECORD. *Lloyds MMS 440*

*Port Smeay*

*GA*

*12/6/40*

*Detach back Dept*



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