

## REPORT OF SURVEY ON REFRIGERATING MACHINERY &amp; APPLIANCES.

18 DEC 1939

(Received at London Office)

Date of writing Report 7th Nov. 1939 When handed in at Local Office 7th Nov. 1939 Port of YOKOHAMA

No. in Reg. Book. Survey held at YOKOHAMA Date: First Survey 16th Oct. Last Survey 31st Oct. 1939. (No. of Visits Two)

on the Refrigerating Machinery and Appliances of the T.S.S. "HARUNA MARU",

Gross 10421 Kessel built at Nagasaki By whom Mitsubishi Zosen K.K. When 1922-2  
Net 6314 Owners Nippon Yusen K.K. Port Tokyo Voyage

Last Survey No. 4524 Port Shi

## ARTICULARS 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.	No.	Capacity.	
2	2	Carb Anhy	J & E Hall Id.	1922	Brine SlabCork	x	Tons. 12	3	Cubic ft. 8320	Lloyd's RMC 6-39

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

Is the machinery been examined under working conditions Yes before or after the refrigerated cargo was discharged X  
 Density of brine 45 by Twd. hydrometer. TEMPERATURES of air at the snow box and of the return air X & X  
 delivery and return air at direct expansion or brine cooled batteries X & X, outflow and return brine 5°F & 9°F  
 atmosphere 74°F, cooling water inlet and discharge 69°F & 73°F, gas in condensers and evaporators &  
 AVERAGE TEMPERATURE in each refrigerated chamber, as per log, before discharging commenced  
 Provision chamber frosted to 12°F

Port Aug. 1938.

Condenser Coils, date of last test Starbd. Jan. 1939. 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 only the 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 X  
 Has the insulation been examined throughout the cargo chambers Yes Where charcoal, indicate condition,  
 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, air ductways 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 unfrosted Have the sea injection valves been opened and examined X  
 The Survey is not complete, state what arrangements have been made for its completion and what remains to be done Complete.  
 Work done:- Port refrigerating machine opened up completely, compressor cylinder, piston, cover and  
 valves, steam cylinder, piston, cover and slide valves, connecting rods, crank  
 shafting, examined and brine and circulating pumps examined and all found in order.  
 Starboard machine compressor opened up, cylinder, cover and valves examined and found  
 in order.

The insulation, brine piping, thermometer tubes, and fittings throughout whole, cargo  
 spaces examined, found or recommended in good order.

The refrigerating machinery and its auxiliaries examined under working condition and  
 found in good order.

It was stated by the Chief Engineer that the thermometer tube box in centre cargo  
 chamber had been frosted by ice before loading at Shanghai on the last voyage.

It was now recommended that this thermometer tube, which passing through the provision  
 chamber on upper tween deck, to be more completely insulated in the provision chamber  
 and their foot to be made watertight. P.T.C.O.

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

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

this vessel are in good condition and eligible in my opinion to remain as classed with fresh record  
 of Lloyd's RMC 10-39.

Fee £ 60.00 : Fee applied for, 2nd November, 1939.

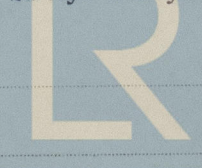
Travelling Expenses £ 2.00 : Received by me, 19

FRI. 29 DEC 1939

Committee's Minute

Assigned + Lloyd's Rmb. 10.39

*M. Higgins*  
 Surveyor to Lloyd's Register of Shipping.



Lloyd's Register  
 Foundation

009116 - 009121 - 0270



REPORT OF SURVEY ON REFRIGERATING MACHINERY & APPLIANCES

T.Sc.S. "HARUNA MARU".

The Owners stated that this item will be dealt with on ship's return to Japan.

*NA*

It is submitted that  
this vessel is eligible for  
THE RECORD. *Haruna Maru 10-29.*

*Part Survey  
A thermometer tube &  
be dealt with on return  
to Japan*

*24/12/29*



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