

REPORT ON REFRIGERATING MACHINERY AND APPLIANCES.

(Received at London Office)

23 JUN 1950

Date of writing Report

19 When handed in at Local Office

Port of

CALCUTTA

No. in

Reg. Book. 24948

Survey held at

CALCUTTA

Date: First Survey June '49

Last Survey 9 - 5 - 1950

(No. of Visits)

7

the Refrigerating Machinery and Appliances of the

"SANGOLA"

Tons

Gross 8646

Net 5053

Set built at

Whiteinch

By whom built Barclay Curle & Co., Ltd. Yard No. /

When built 1947 - 6

Owners

British India Steam Nav. Co,

Port belonging to

London

Voyage /

Refrigerating Machinery made by J & E Hall, Ltd.

Machine Nos. /

When made 1947

Insulation fitted by Two new chambers fitted by

Garden Reach Workshops

When fitted

1950

System of Refrigeration Carb. Anhy

Method of cooling Cargo Chambers

Brine & Air

Insulating Material used Slab cork - cement faced

Number of Cargo Chambers insulated now, four (4)

Total refrigerated cargo capacity to be verified cubic feet.

DESCRIPTION OF REFRIGERATING MACHINERY. Where placed

Refrigerating Units, No. of

No. of machines

Is each machine independent

Total refrigeration or ice-melting capacity in tons per 24 hours

Are all the units connected to all the refrigerated chambers

Compressors, driven direct or through single } reduction gearing. Compressors, single or double acting

If multiple effect compression

Safety valves or safety discs fitted

No. of cylinders to each unit

Diameter of cylinders

Diameter of piston rod

Length of stroke

No. of revolutions per minute

motive Power supplied from

(State number of boilers, oil engines or electric generators supplying the motive power.)

Steam Engines, high pressure, compound, or triple expansion, surface condensing. No. of cylinders

Diameter

Length of stroke

Working pressure

Diameter of crank shaft journals and pins

Width and thickness of crank webs

No. of sections in crank shaft

Revolutions of engines per minute

Oil 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

Width and thickness of crank webs

No. of sections in crank shaft

Revolutions of engine per minute

AIR RECEIVERS: — Is each receiver, which can be isolated, fitted with a safety valve as per Rule.

Can the internal surfaces of the receivers be examined

What means are provided for cleansing their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver

If made under survey

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

Volts at

Revolutions per minute. Diameter of motor shafts at bearings

Reduction 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

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

to casings

No. of coils in each

Material of coils

Can each coil be readily shut off or disconnected

Water Circulating Pumps, No. and size of pumps available

how worked

Gas Separators, No. of

Gas 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 battery

Air Circulating Fans, Total No. of Two - extra each of 2500 c.f.m.

cubic feet capacity, at /

revolutions per minute /

Steam or electrically driven

Electrically

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

closed

Are the pipes and tanks galvanised on the inside

externally

No. of brine sections in each chamber

Two (roof & side)

Can each section be readily shut off or disconnected

Yes.

Are the control valves situated in an easily accessible position

Yes.

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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

Are all wood linings tongued and grooved

Yes

Are cement facings reinforced with expanded steel lattice

Yes

How is the expanded metal secured in place galvanised steel wire fastenings

How are the cork slabs secured to the steel structure of the vessel bedded in Bitumen and skewered together.

Air Trunkways in Chambers. Are the arrangements satisfactory and in accordance with the approved plans

Yes

Are they permanently fixed or collapsible, or portable

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

Where are the doors worked from

Cooling Pipes in Chambers, diameter

Minimum thickness

Are they galvanised externally

Yes

How are they arranged in the chambers

Grids.

Thawing Off, what provision is made for removing the snow from the cooling pipes in the chambers

steam heated brine.

The foregoing is a correct description of the Insulation and Appliances.

GENERAL MANAGER,
GARDEN REACH WORKSHOPS, LTD.

Builders.

Plans. Are approved Plans or Specifications forwarded herewith for the Refrigerating Machinery

(If not, state date of approval)

retained for
and Insulation Calcutta records.

Is the Refrigerating Machinery and Appliances duplicate of a previous case

Yes

If so, state name of vessel

"Sirdhana"

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

To complete the survey of the two additional refrigerated chambers and the refrigerating appliances attached thereto, the Cooling Test remains to be carried out in accordance with Rule Requirements and the capacity of all chambers to be verified. It is stated that this will be dealt with at Singapore. (Surveyor advised)

General Remarks (State quality of workmanship, opinions as to class, &c.) Enclosed herewith London Rpts. 7B, Nos. G.1198/9.

The additional two refrigerated chambers now fitted in this vessel have been under erection progressively from June 1949 to May 1950 during this vessel's stay in Calcutta at the termination of each round voyage.

The chambers and appliances have been erected in accordance with the Requirements of the Rules for Refrigerating Machinery and Appliances of Ships and in accordance with approved plans.

The workmanship has been found to be and maintained at a high standard.

This installation is eligible in my opinion to be retained as now classed in the Register Book subject to the satisfactory completion of the Cooling Test.

Please refer to Secretary's letters 'E' 18-10-48 to Calcutta, 'E' 10-10-47 to J&E Hall, 'E' 18-10-48 to Owners.

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.
2	4	Carb. Anhy.	J&E Hall Ld.	1947	Brine & Air Slab Cork.	Tons. 9.	No.	4	Cubic ft. To be verified.

Fee *£100/-* (Fee applied for, 17. 5. 1950.)

Travelling Expenses £ *20/-* (Received by me, 19)

Surveyor to Lloyd's Register.

Committee's Minute

TUES. 11 JUL 1950

Assigned

Deferred.



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