

REPORT ON REFRIGERATING MACHINERY AND INSULATION

(Received at London Office)

THUR. 13 AUG 1908

Date of writing Report 10th Aug 1908 When handed in at Local Office

Port of Hamburg

No. in

Reg. Book.

758

Survey held at

Flensburg

Date: First Survey

1st June

Last Survey

8th Aug

1908

(No. of Visits)

12

on the Refrigerating Appliances of the Iron or Steel S.S. "Rostock" Master L. Mayer

Tons

Gross 4972

Net 2879

Vessel built at

Flensburg

By whom

Flensburger Schiffsbau Ges.

When

1901 - 12

Owners

Deutsch-Austral Dampfsschiff. Ges.

Port

Hamburg

Voyage

Australia

Carbonic Anhydride System. Machinery made by J. & E. Hall, Ltd.

When

1905

Insulation fitted by

the Flensburger Schiffsbau Ges.

When

1908

Non-conducting material used

Flake charcoal

Number of insulated chambers

6

Total capacity

67500

cub. ft.

DESCRIPTION OF MACHINES, ETC.

No. of machines

1

Single or duplex

duplex

Where placed

Engine Room

Power of each machine in tons of ice melted per 24 hours

42

Sizes of steam cylinders

11 1/2 X 32 7/8" dia.

Stroke

15"

Revolutions per minute

80

Working pressure

185 lbs

No. of compression cylinders

2

Diameter of each

4"

Single or double acting

double

Stroke

15"

Diameter of crank shaft

5"

How are air, circulating and feed pumps

worked from crankshaft of machine

Are they in duplicate

no

Can their work be performed by main engines

yes

No. of gas condenser coils

10

Can each be readily disconnected

yes

No. of refrigerator coils

7

Can each be readily disconnected

yes

No. of brine pipe sections

14

Can each be readily disconnected

yes

What test has been applied to gas cylinders and

coils 3000 lbs 1905

to cast iron connections

none used

to refrigerator coils

3000 lbs 1905

to brine pipe sections

70 lbs

Are outlets of brine return pipes accessible

yes

Is each fitted with a thermometer

yes

What pipes in connection with refrigerating appliances are carried through bunkers or holds

none

How are they protected

-

What means are adopted for draining engine room

common bilge suction

Is all necessary auxiliary machinery supplied

yes

SPARE GEAR. ARTICLES REQUIRED BY RULES AND SUPPLIED.

ADDITIONAL SPARE GEAR SUPPLIED.

1 1/2 crankshaft, 1 steam piston with rod and nut, 1 eccentric sheave strap and rod, 1 set piston rings for each cylinder, 1 main and cut-off slide valves for H.P. steam cylinder with rods, 1 main bearing with bolts, 1 crankpin brass with 2 bolts, 2 crosshead brasses with 4 bolts, 1 steam piston, 1 set piston rings for compressor, 2 compressor pistons rods and nuts compl., 1 air pump bucket and rod, 1 circulating pump bucket and rod, 4 compressor suction and 4 delivery valves with 8 springs and boxes compl., 1 set valves for air circulating feed and brine pumps, 1 steam piston with rings, rod compl. for Ten engines, 1 piston valve and spindle for do., 1 pair of connecting rod brasses with bolts for do., 1 eccentric rod and strap for do., 1 set of blocks and leather for making all leather packings used, 10 tubes and 20 ferrules for condenser, 2 distibuting and 2 collecting pipe brackets for coils.

1 gas regulating valve, lengths and bends of piping of each ring used with flanges, couplings and screwing apparatus, thin dry valves cocks, flanges and fittings, assorted bolts, studs, nuts, a quantity of joint rings, 2 covers for compressor cylinders, 1 compressor gland and packing compl., 2 lengths of copper gauge piping, 1 hand pump for lubricator, 2 springs for brine relief valves, 2 " " " water " " " 6 1/2 safety valve 2 CO₂ gauge valves, 1 hydrometer, 8 thermometers, 1 CO₂ pressure gauge, 6 CO₂ valve springs, 6 safety valve discs, 1 brine pump compl., 1 plunger piston with rod and nut for do., 1 piston ring for do.

ARTICLES REQUIRED BY RULES AND NOT SUPPLIED

All articles required by Rules supplied.

The foregoing is a correct description.

The Machinery has been taken over of the "Solingen" Super J. & E. Hall Ltd. Repaired on the Manufacturers.

GENERAL REMARKS AND RECOMMENDATION (If Survey is not complete state what remains to be done)

The above described Refrigerating machinery has been removed out of the steamer "Solingen" and fitted in to this vessel. The machinery has been constructed under Special Survey and has been thoroughly examined and repaired where necessary, tested under full working condition and found satisfactory. I have fore of opinion that it is eligible to be recorded RMC 8, 08 in the Register Book and beg to recommend that a certificate to this effect be issued and sent to this Office.

Surveyor to Lloyd's Register of British and Foreign Shipping.

J. Köhler

Lloyd's Register Foundation

W857-0014

DESCRIPTION OF INSULATION. IN LOWER HOLDS.						IN 'TWEEN DECKS.				
	Air Space.	Outer Lining.	Non-conducting Material.	Thickness of ditto.	Inner Lining.	Air Space.	Outer Lining.	Non-conducting Material.	Thickness of ditto.	Inner Lining.
SIDES	none	1" pine	charcoal	9	3/4" pine	none	1" pine	charcoal	8"	3/4" lining
OVERHEADING	"	"	"	10	"	"	"	"	8"	"
BULKHEADS No. 1. F ...										
" " A ...										
" No. 2. F ...										
" " A ...										
Frame 63" No. 3. F ...	none	1" pine	charcoal	10"	3/4" pine	none	1" pine	charcoal	10"	3/4" pine
52" " A ...	"	"	"	6"	"	"	"	"	"	"
38" No. 4. F ...	"	"	"	6"	"	none	1" pine	charcoal	6"	3/4" pine
29" " A ...	"	"	"	6"	"	"	"	"	"	"
21" No. 5. F ...	"	"	"	9	"	none	1" pine	charcoal	8"	3/4" pine
" " A ...										
" No. 6. F ...										
" " A ...										

RIBBAND, MAIN DECK *breadth 5 ft., thickness 3" pitch pine at sides and ends otherwise portable gratings.*

BOTTOM *8" flake charcoal inner lining 1" Outer 1 1/2*

HATCHWAYS *6" washed cow hair, linings top & bottom 1 1/4 framing 2 1/2 pitch pine*

FRESH WATER TANKS *MASTS Mast 6" charcoal double lumps 3/4*

TUNNEL *8" Charcoal 1 1/2 at sides top double 1" 1 1/2* STANCHIONS *secured with 2 1/2 rope.*

SNOW BOX *BILGE SUCTION & AIR & SOUNDING PIPES covered & secured.*

Centre Keelson, Sides *Top* Side Keelson, Sides *Top*

Bilge " Sides *covered in the outside top lumps.* Web frames, Sides *Face*

Bilge Stringers, Top *Bottom* Face

Side " Top *Bottom* Face

Hold or ~~or~~ Stringer, Top *Deck laid with 3" pine* Bottom *Face*

Brackets *enclosed in side lumps.* Sides *Face*

Are insulated hatches fitted over timbers *yes* and manhole doors of tanks *yes*

Are insulated plugs fitted in way of all sluices *yes* bilge suctions *yes* sounding pipes *yes*

Are insulated plugs fitted to ventilators *yes* to cargo ports *none* in side insulation for examination of ship's side *yes*

Are the bottoms, sides and coamings of all insulated hatches coated to prevent decay *yes*

Are portable boxes fitted in overheadings for replenishing side insulation *yes* and on tunnel tops *yes*

What means, if any, are taken to protect the bottom insulation in way of hatchways *1 1/2 American Elm*

Dimensions of cargo battens, on sides *2 x 2.* on bottom *3 x 3* spacing *12"*

Are these permanently fixed or portable *permanently fixed*

Number of thermometer tubes in each chamber *2 in. in the second frame space.. before and behind*

Position of *do.* the bulk heads, except in forward compartment at midships

Are the flanges and covers of thermometer tubes efficiently fitted *yes* Are all wood linings tongued and grooved *yes*

Description and arrangement of trunkways or brine pipes for the distribution of cold *Through bulkheads as per approved plan attached. Brine pipes or coil guide fitted under deck, at sides, on bulkheads, on tunnel sides and under under hatchways.*

Do any trunkways pass through water-tight bulkheads *yes* are water-tight doors fitted *yes* and efficiently insulated *yes*

What means are adopted for closing the trunkways when carrying general cargo *bulk ways made to fold up*

The foregoing is a correct description. Builders.

PARTICULARS TO BE ENTERED IN REGISTER BOOK.

REFRIGERATING MACHINES.					System of (1) Refrigerating (2) Insulating the Chambers	POWER.		INSULATED CARGO CHAMBERS.	
No. and whether Single or Duplex.	Makers.	Date of Construction.	System.	Type.		Cubic feet of air delivered per hour.	Ice melting capacity per 24 hours. Tons.	No.	Capacity.
1 Duplex	J. & T. Hall	10.05	P.O.	Hall	Brine	6	67500
		1908			Charcoal				

Fee *£. 720.-* { Fee applied for, *2/8* 1908.

Travelling Expenses *£. 348.-* { Received by me, *10/8* 1908.

Committee's Minute *FRI. 14 AUG 1908*

Assigned *+ Rm 68.08*

J. Köhler
 Surveyor to Lloyd's Register.

Mr. Kenneth Geo. Byke

It is submitted that this vessel is eligible for the Record + to the Lloyd's Register Foundation

MACHINERY CERTIFICATE WRITTEN.

13.8.08.