

REPORT ON REFRIGERATING MACHINERY AND INSULATION.

(Received at London Office SAT. - 8 APR. 1916)

No. of writing Report 25-3-1916 When handed in at Local Office

No. in

Reg. Book. Survey held at Glasgow Date: First Survey 4/10/15 Last Survey 23rd/3/1916in the Refrigerating Appliances of the ~~Iron~~ Steel H.M.S. "Aurora" Master

Vessel built at Glasgow By whom Fairfield S.B. & Co. Ltd. When 1916

Port Voyage

Insulation fitted by Fairfield S.B. & Co. Ltd. When

Non-conducting material used Granulated cork Number of insulated chambers 7 Total capacity 1 cub. ft.

DESCRIPTION OF MACHINES, ETC. No. of machines one Single or duplex Duplex Where placed Tunnel aft of funnel

Power of each machine in tons of ice melted per 24 hours 48 Sizes of steam cylinders 12" 22 7/8" Stroke 15"

Revolutions per minute 80 Working pressure 230 No. of compression cylinders 2 Diameter of each 4 5/16

Single or double acting double Stroke 15" Diameter of crank shaft 5 1/2" How are air, circulating and feed pumps

worked off crank shaft. Are they in duplicate No Can their work be performed by main engines Yes

No. of gas condenser coils 12 Can each be readily disconnected Yes No. of refrigerator coils 8 Can each be readily disconnected Yes

No. of brine pipe sections 26 cargo 7 Provisions Can each be readily disconnected Yes What test has been applied to gas cylinders and

coils 300 lb water 1350 psi to steel connections 3000 lb W. to refrigerator coils 3000 lb W. - 1350 psi

to brine pipe sections 180 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 New Pipe How are they protected Insulated by lagging

What means are adopted for draining engine room drain into tunnel pipe Is all necessary auxiliary machinery supplied Yes

SPARE GEAR. ARTICLES REQUIRED BY RULES AND SUPPLIED.

ADDITIONAL SPARE GEAR SUPPLIED.

Spare gear checked & found to comply with London Rept. dated Sept. 3rd 1915Additional gear checked & found to comply with London Rept. dated Sept. 3rd 1915

ARTICLES REQUIRED BY RULES AND NOT SUPPLIED

foregoing is a correct description.

Manufacturers.

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

Plus engine now fitted on and coupled up to the previous boiler only, & tested on the same engine room for 4 hours & the engine cooled down to 9 Foh. Temperature taken at the forward & found to be 19 Foh. & 13 hours later found 28 Foh. The vessel will be enabled to the record of 4 hours (with date) when the holds have been insulated & tested under working conditions on the insulated cargo chambers the latter cooled down say to 10 Foh. loading a refrigerated cargo the space searched. (London Rept. on an auxiliary more returned)

Cargo holds have not been insulated the vessel having been taken over by the Government.

Well Gordon, Director

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

1916

DESCRIPTION OF INSULATION.

IN LOWER HOLDS.

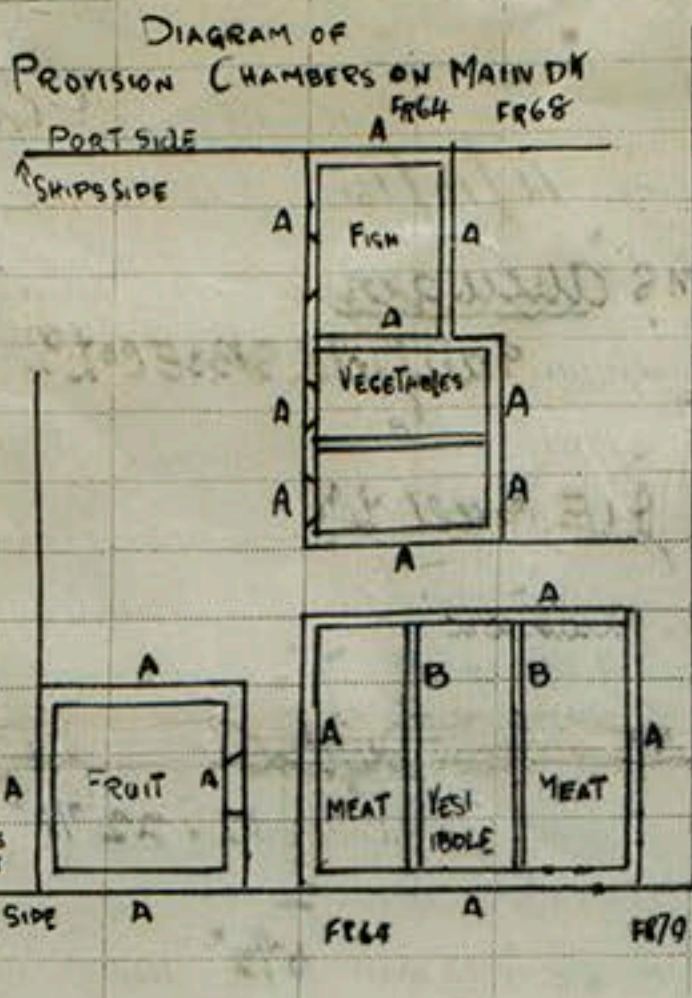
Provision Chambers only

TWEEN DECK.

Sept. 17.

REPORT

SIDES	Air Space.	Outer Lining.	Non-conducting Material.	Thickness of ditto.	Outer Lining.	Non-conducting Material.	Thickness of ditto.
OVERHEADING							
BULKHEADS No. 1. F...							
" " A...							
No. 2. F...							
" " A...							
No. 3. F...							
" " A...							
No. 4. F...							
" " A...							
No. 5. F...							
" " A...							
No. 6. F...							
" " A...							



Sides A — 1" T.G. WP 9" granulated cork 11" 1" T.G. WP
 Overhead — ditto ditto 8 1/2"
 Division B — ditto ditto 6"
 Wood dk underside of deck 5" x 3" Pitch Pine wood dk in all cases
 " 1" T.G. WP 9" granulated cork 8 1/2" 1" T.G. WP
 for 64 to 79 Starboard & 64 to 68 Port
 insulated with 8 1/2" granulated cork and 2" cork slabs
 8 1/2" granulated cork
 one thick 1" WP T.G.
 one thick 1" WP T.G.
 Galva Sheet Iron.
 one Thermometer tube fitted to each chamber

RIBBAND, MAIN DECK

BOTTOM

HATCHWAYS

FRESH WATER TANKS

TUNNEL

SNOW BOX

MASTS

STANCHIONS

BILGE SUCTION & AIR & SOUNDING PIPES

Centre Keelson, Sides

Top

Side Keelson, Sides

Top

Bilge " Sides

Top

Web frames, Sides

Face

Bilge Stringers, Top

Bottom

Face

Side " Top

Bottom

Face

Hold or Orlop Stringer, Top

Bottom

Face

Brackets

Sides

Face

Are insulated hatches fitted over timbers

and manhole doors of tanks

Are insulated plugs fitted in way of all sluices

bilge suction

sounding pipes

Are insulated plugs fitted to ventilators

to cargo ports

in side insulation for examination of ship's side

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

Are portable boxes fitted in overheads for replenishing side insulation

and on tunnel tops

What means, if any, are taken to protect the bottom insulation in way of hatchways

Dimensions of cargo battens, on sides

on bottom

spacing

Are these permanently fixed or portable

Number of thermometer tubes in each chamber

one in each provision chamber

Position of do.

Sides of Provision Chamber

Are the flanges and covers of thermometer tubes efficiently fitted for Provision Chambers

Are all wood linings tongued and grooved for Provision Chambers only

Description and arrangement of trunkways or brine pipes for the distribution of cold

on Top & Sides

For THE FAIRFIELD SHIPBUILDING

AND ENGINEERING CO., LIMITED

and efficiently insulated

Do any trunkways pass through water-tight bulkheads

What means are adopted for closing the trunkways when carrying general cargo

W. Macmillan

MANAGER

The foregoing is a correct description.

Builders.

PARTICULARS TO BE ENTERED IN REGISTER BOOK.

REFRIGERATING MACHINES.					POWER.		INSULATED CHAMBERS.	
No. and whether Single or Duplex.	Makers.	Date of Construction.	System.	Type.	System of (1) Refrigerating (2) Insulating the Chambers.	Cubic feet of air delivered per hour.	Ice melting capacity per 24 hours.	No.

Not eligible for record. Installation incomplete

Fee £ : : (Fee applied for, 190
 Travelling Expenses £ : : (Received by me, 190

Committee's Minute GLASGOW 6 APR. 1916

Assigned Defered for compl.

W. Gordon Macmillan
 Surveyor to Lloyd's