

REPORT ON MACHINERY.

No. 80758

Date of writing Report

19

When handed in at Local Office

1 JUN 1920

Received at London Office

Port of

LIVERPOOL

WED JUN 2 1920

No. in Survey held at

Ellesmere Port.

Date, First Survey

Dec 1/1919

Last Survey

May 26 1920

Reg. Book.

741 on the

S. S. Ben Sept. ex. Devon.

(Number of Visits)

8

Master Ernest Jones.

Built at

Ellesmere Port

By whom built

Manchester D.D. Co. Ltd.

Engines made at

Manchester

By whom made

Manchester D.D. Co. Ltd.

when made

1920.

Milers made at

Birkenhead

By whom made

Cammell Laird & Co. Ltd.

when made

1920

Registered Horse Power

Owners

Ramsey Steamship Co. Ltd.

Port belonging to

Ramsey, 20th.

Horse Power as per Section 28

52.

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

No.

ENGINES, &c.—Description of Engines

See Manchester Rpt. No. 4526.

No. of Cylinders

No. of Cranks

No. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

Material of

the screw shaft fitted with a continuous liner the whole length of the stern tube

Is the after end of the liner made water tight

the propeller boss If the liner is in more than one length are the joints burned

If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two

bearings are fitted, is the shaft lapped or protected between the liners

Length of stern bush

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

Hulls

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

No. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Donkey Engines

One.

Sizes of Pumps

5 1/2, 3 1/2 + 8 jetor

No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 2-2"

In Holds, &c. 2-2" 7' 1-2" A.P. 1-2"

No. of Bilge Injections

1

sizes

3

Connected to condenser, or to circulating pump

Ciaff.

Is a separate Donkey Suction fitted in Engine room & size 1-2"

Are all the bilge suction pipes fitted with roses

yes

Are the roses in Engine room always accessible

yes

Are the sluices on Engine room bulkheads always accessible

none.

Are all connections with the sea direct on the skin of the ship

yes.

Are they Valves or Cocks

both.

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

yes.

Are the Discharge Pipes above or below the deep water line

above.

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

yes.

Are the Blow Off Cocks fitted with a spigot and brass covering plate

yes.

What pipes are carried through the bunkers

none.

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

yes.

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

yes.

Is the Screw Shaft Tunnel watertight

none.

Is it fitted with a watertight door

✓

worked from

BOILERS, &c.—(Letter for record)

(S)

Manufacturers of Steel

See Liverpool Rpt. No. 80562.

Total Heating Surface of Boilers

9527

Is Forced Draft fitted

no

No. and Description of Boilers

One cylindrical S.B.

Working Pressure

130 lbs

Tested by hydraulic pressure to

260.

Date of test

21-3-19.

No. of Certificate

2060.

Can each boiler be worked separately

✓

Area of fire grate in each boiler

35 sq

No. and Description of Safety Valves to

boiler 2. Direct Spring

Area of each valve

4.91"

Pressure to which they are adjusted

135 lbs.

Are they fitted with easing gear

yes.

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

Mean dia. of boilers

Length

Material of shell plates

Forecastle

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

No. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

No. of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

No. of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Girders across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Steam dome: description of joint to shell

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

No. of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

No. of Tests

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

W425-0014

IS A DONKEY BOILER FITTED?

no.

If so, is a report now forwarded?

✓

SPARE GEAR. State the articles supplied:-

As per Manchester Rpt. No. 4536.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1919 Dec 1. 1920 Jan 2, 15, April 26, May 22, 26.
During erection on board vessel --
Total No. of visits 9

Is the approved plan of main boiler forwarded herewith

yes

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods
Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller 15-12
Stern tube 1-13-19 Steam pipes tested 1-5-20 Engine and boiler seatings 30-10-19 Engines holding down bolts 11-5-20
Completion of pumping arrangements 18-5-20 Boilers fixed 9-4-20 Engines tried under steam 20-5-20
Completion of fitting sea connections 16-4-20 Stern tube 3-12-19 Screw shaft and propeller 26-4-20
Main boiler safety valves adjusted 20-5-20 Thickness of adjusting washers P+S-3/8
Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.
Material of Steam Pipes Copper Test pressure 260 lbs.
Is an installation fitted for burning oil fuel no. Is the flash point of the oil to be used over 150°F. ✓
Have the requirements of Section 49 of the Rules been complied with
Is this machinery duplicate of a previous case no. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Boiler - Liverpool Rpt. No. 80562 + Engines - Manchester Rpt. No. 4536 have been securely fitted on board all machinery satisfactorily tried under steam.

A crack 7' long which developed in the condenser wall at the after end the port side has been efficiently repaired by fitting a steel plate on each side & well fastened by fitted bolts.

This machinery is in our opinion eligible to be classed and to have record of Sub 5.20. 1 LB. 130 lbs. (S) 2 p.f. 65-35. N.H.P. 52.

It is submitted that this vessel is eligible for THE RECORD. T.L.M.C. 5.20.

The amount of Entry Fee £ 2 : 5 :
Special Attitude £ 1 : 1 :
Donkey Boiler Fee £ : :
Travelling Expenses (if any) £ : 15/6 :
When applied for, - 1 JUN 1920
When received, 3/8/20

Committee's Minute

Assigned

L M C 5:20

MACHINERY DEPT. WRITTEN



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