

# REPORT ON MACHINERY.

No. 80758

Received at London Office

Date of writing Report

19

When handed in at Local Office

1 JUN 1920

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.

Tons

Gross 274

Net 102

When built 1920

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, Southampton

Net 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

Is 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

liners 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

blades

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 jet

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

Engine Room

2-2

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

No. of Bilge Injections

1

sizes

3

Connected to condenser, or to circulating pump

Cliff

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

yes

worked from

BOILERS, &c.—(Letter for record)

(S)

Manufacturers of Steel

See Liverpool Rpt No. 80562

Total Heating Surface of Boilers

952 1/2

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

yes

Area of fire grate in each boiler

35 1/2

No. and Description of Safety Valves to

each 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

Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

No. of rivets Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Percentage of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell

No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part Thickness of plates crown bottom 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

Are there 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

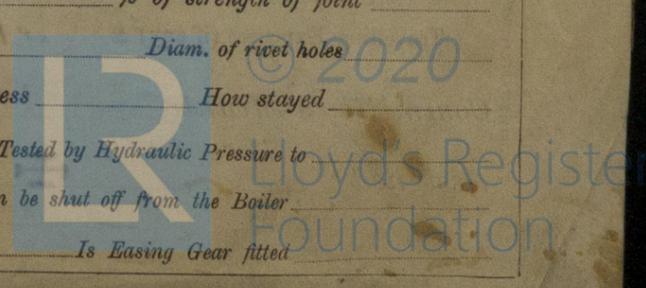
No. of rivets Working pressure of shell by rules Crown plates Thickness How stayed

Superheater. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test 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:—

*Asper Manchester Rpt. No. 4536.*

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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 27, 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 *1-12-19* 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  $\boxtimes$  Sub 5.20. 1 LB. 120 lbs. (S) 2 p.f. GS-35. N.H.P. 52.*

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

The amount of Entry Fee £ 2 : 5 :  
Special Rate Attendance £ 1 : 1 :  
Donkey Boiler Fee £ : :  
Travelling Expenses (if any) £ : 15/6 :  
When applied for, -1 JUN 19 1920  
When received, 3/8 19 20

Committee's Minute

Assigned

LIVERPOOL - JUN 1920

*L M C 5:20*  
When fee is paid

MACHINERY DEPT  
WRITTEN

2620



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