

## REPORT ON MACHINERY.

No. 8313

Received at London Office

FRI. 22 JUL. 1921

Date of writing Report

19

When handed in at Local Office

19

Port of

DUNDEE.

No. in Survey held at

Montrose

Reg. Book.

Date, First Survey Jan. 13<sup>d</sup> 1921 Last Survey July 16<sup>th</sup> 1921

(Number of Visits 14)

on the S.S. "SOUTHQUAY"

Master J. Jones

Built at Montrose

By whom built Eastern Construction Co. Ltd.

Tons } Gross  
Net

Engines made at Kilmarnock

By whom made Grant Ritchie &amp; Co

when made

Boilers made at Redburn

By whom made Edwin Banks &amp; Co. Ltd

when made

Registered Horse Power

Owners (Candlish, &amp; Co)

Port belonging to London

Nom. Horse Power as per Section 28

105 120

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &amp;c.—Description of Engines

Inserted triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders 15.25.40

Length of Stroke 24"

Revs. per minute 115

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

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

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 journal

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

collars

Dia. of screw

Pitch of screw

No. of Blades

State whether moveable

Total surface

No. of Feed pumps

Glasgow

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

3

Sizes of Pumps

BALLAST. 6x6x6  
GENERAL. 6x4x6  
FEED. 6x4x6

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

In Engine Room

4 @ 2 1/4"

A.P.T. 1 @ 2 1/4"

In Holds, &amp;c. F.P.T. 1 @ 2 1/4" sup tank, 1 @ 3"

No. of Bilge Injections

1

sizes

3 1/2"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room &amp; size

Yes, 2 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

Yes

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

Yes

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

Yes

BOILERS, &amp;c.—(Letter for record S.) Manufacturers of Steel

Total Heating Surface of Boilers 1820

Is Forced Draft fitted

Yes

No. and Description of Boilers

Two single ended main

Working Pressure 180 Lb

Tested by hydraulic pressure to

Date of test

No. of Certificate

448

449

Sheffield.

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

24

No. and Description of Safety Valves to

each boiler 2 Spring loaded

Area of each valve

4.9

Pressure to which they are adjusted

185 Lb

Are they fitted with easing gear

Yes

Smallest distance between boilers on uptakes and bunkers on 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

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size 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

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or rivet 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

Material of stays

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch 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

Pitch 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

W792-0115

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Foundation



IS A DONKEY BOILER FITTED? ☒

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— As per Glasgow Report 40076; Checked found in order.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops - - - 1921 JAN. 13. 21. 24. 22. 28.  
During erection on board vessel - - - 1921 FEB. 4. 14. 25. MAR. 15. APR. 14. 28. MAY 19. 26. JUNE 9. JULY 6. 15. 16.  
Total No. of visits 14.  
Is the approved plan of main boiler forwarded herewith ☒  
" " " donkey " " " ☒  
" " " " " " ☒  
Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods  
Connecting rods Crank shaft Thrust shaft 13.1.21. Tunnel shafts Screw shaft 13.1.21 Propeller 21.1.21  
Stern tube 21.1.21 Steam pipes tested Glasgow Engine and boiler seatings 10.12.20. Engines holding down bolts 15.3.21.  
Completion of pumping arrangements 15.4.21 Boilers fixed 17.2.21. Engines tried under steam 16.4.21.  
Completion of fitting sea connections 21.1.21 Stern tube 21.1.21 Screw shaft and propeller 21.1.21.  
Main boiler safety valves adjusted 16.4.21. Thickness of adjusting washers PORT. F.  $\frac{3}{8}$  A.  $\frac{3}{8}$  STARBOARD. F.  $\frac{1}{4}$  A.  $\frac{3}{8}$   
Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Steel Identification Mark on Do. Lloyd's No 5110 J.P. 27-8-20.  
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.  
Material of Steam Pipes Test pressure Tested at Glasgow.  
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 ☒ If so, state name of vessel ☒

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boilers of this vessel have been satisfactorily fitted on board under special survey, examined under full working conditions & found in good order.

The propeller & thrust shafts examined & found in good order. The machinery is eligible in my opinion to be classed L.M.C. 7.21.

For full details please see following reports now enclosed:—

Main Engines:— No 40076, Glasgow.

" Boilers:— No 354 & 354 Sheffield.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 7.21. F.D. CL

The amount of Entry Fee ... £ : : When applied for, 21 July 1921.  
Special 20.24 ... £ 5 : 0 :  
Letter A 7 17.4.20. ... £ : :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ 4 : 11 : 10 7.10.1921

Committee's Minute

FRI. 29 JUL. 1921

Assigned

+ L.M.C. 7.21

F.D. CL



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