

Son. Nph. No. 10806.

Rpt. 4.

REPORT ON MACHINERY.

No. 39414

Date of writing Report

19

When handed in at Local Office

29. 11. 1919. Port of

Received at London Office

GLASGOW

DEC. 1919

No. in Survey held at

Glasgow

Date, First Survey

2-5-19

Last Survey

29. 10. 1919

Reg. Book.

on the

S.S. "SOJOURNER"

(Number of Visits

11

Tons

Gross

435

Net

200.2

Master

Built at

Gosport

By whom built

Campbell & Nicholson Ltd. (285)

When built

1919

Engines made at

Glasgow

By whom made

Crichton & Blair Ltd. (124)

when made

1919

Boilers made at

Glasgow

By whom made

Forth Shipbuilding & Eng. Co. Ltd.

when made

1919

Registered Horse Power

Owners

Robinson, Brown & Co. Ltd.

Port belonging to

Newcastle

Nom. Horse Power as per Section 28

91.2

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Compound

No. of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

18" 3/8"

Length of Stroke

24"

Revs. per minute

Dia. of Screw shaft

as per rule 8" 1/4"

Material of

8"

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

yes

Is the after end of the liner made water tight

in the propeller boss

yes

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

2' 9 1/2"

Dia. of Tunnel shaft

as per rule 7.53"

Dia. of Crank shaft journals

as per rule 4.91"

Dia. of Crank pin

8 1/4"

Size of Crank webs

15 1/4" x 5 1/2"

Dia. of thrust shaft under

collars

8 1/8"

Dia. of screw

9 1/2"

Pitch of Screw

12 1/6"

No. of Blades

4

State whether moveable

No

Total surface

352 sq ft

No. of Feed pumps

1

Diameter of ditto

2 3/8"

Stroke

13 1/2"

Can one be overhauled while the other is at work

No. of Bilge pumps

1

Diameter of ditto

2 3/8"

Stroke

13 1/2"

Can one be overhauled while the other is at work

No. of Donkey Engines

Sizes of Pumps

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

In Engine Room

In Holds, &c.

No. of Bilge Injections

1

sizes

4 1/2"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

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

Are they Valves or Cocks

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

Are the Discharge Pipes above or below the deep water line

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

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

What pipes are carried through the bunkers

How are they protected

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

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

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

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

Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure 130 Lb/sq in

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

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 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

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

UPERHEATER. 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

505403-005411-0165

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Bottom end Bolts & Nuts, 2 Top end, 2 Main bearing & 6 Coupling Bolts & Nuts, 1 Set Air Pump Valves, 1 Set Feed, 1 Set Bridge & Air Circulating Pump Valves, 1 Head Pump Escape Valve Spring, 6 Cylinder Cover Studs & Nuts, 6 Steam Chest Studs & Nuts, 6 Gunk Ring Studs & Nuts, 6 Condenser Tubes & 12 Condenser Tubes, 1 Bull Packing Cord, 1 Set Eye bolts for Pistons 70 lb 8, 1 Set Spanners 10 to 12, 2 Slifting Spanners, 1 Box Spanner for gunk Ring Nuts & 1 for Piston Valve Pins, 1 Crowfoot Spanner for Valve Rod Nuts, 1 Ring Spanner for Top and Bottom end nuts, 1 for Main Bearings 1 for Piston Rod Nuts, 1 Jaw Spanner for Air Pump Nut & 1 for Coupling Nuts, 1 Set Crank Shaft Gauge

The foregoing is a correct description.

MITCHISON, BLAIR LTD.

Arch Blair

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1919. May 2. 5. 14. 16. July 1. 31. Sept. 15. 18. Oct. 8. 20. 29.
During erection on board vessel - - -
Total No. of visits 11.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 1.4.19 Slides 15.9.19 Covers 15.9.19 Pistons 15.9.19 Rods 15.9.19 Connecting rods 15.9.19 Crank shaft 1.4.19 Thrust shaft 16.5.19 Tunnel shafts None Screw shaft 18.9.19 Propeller 14.5.19 Stern tube 15.9.19 Steam pipes tested Engine and boiler seatings Engines holding down bolts Completion of pumping arrangements Boilers fixed Engines tried under steam Completion of fitting sea connections Stern tube Screw shaft and propeller Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft S Identification Mark on Do. 124 M 7.19 Material of Thrust shaft S Identification Mark on Do. 124 M 5.19 Material of Tunnel shafts None Identification Marks on Do. ✓ Material of Screw shafts S Identification Marks on Do. 124 M 18.19 Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel ✓ 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 above Machinery has been built under Special Survey. The workmanship and materials are good and they have been well fitted together. Machinery is being forwarded to Messrs Camper & Nicholson, Liverpool, to be fitted on board their No 285.

The above machinery has been efficiently fitted on board, and on trial proved satisfactory.

Glasgow.

HC.
29.11.19

Certificate (if required) to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ : : When applied for.
Special ... £ 4-13-4 : : 19
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When received, 30/9/19

Committee's Minute GLASGOW 2 DEC 1919

Assigned Transmit to London

J. H. Murray & C. H. Boyle
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 24 DEC. 1920

TUE. JAN. 18 1921

Lloyd's Register
Foundation