

Date of writing Report

19

When handed in at Local Office

13. 4. 1918

Port of

Aberdeen

Received at London Office

MUN. 15. APR. 1918

No. in Survey held at

Aberdeen

Date, First Survey

15. 10. 11.

Last Survey

22. 3. 1918

Reg. Book.

on the

S.S. "John Bowler"

(Number of Visits)

Tons

Gross

202.53

Net

85.17

Master

Built at

Aberdeen

By whom built

Hall Russell & Co. Ltd. No. 624

When built

1918

Engines made at

Aberdeen

By whom made

Hall Russell & Co. Ltd. No. 624

when made

1918

Boilers made at

do.

By whom made

do

when made

1918

Registered Horse Power

44

Owners

Admiralty

Port belonging to

✓

Nom. Horse Power as per Section 28

44

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12", 20", 34"

Length of Stroke

23"

Revs. per minute

110

Dia. of Screw shaft

as per rule 6.357

Material of screw shaft

as fitted 4 1/2"

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

length

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

yes

If two liners are fitted, is the shaft lapped or protected between the liners

✓

Length of stern bush

2' 6"

Dia. of Tunnel shaft

as per rule 6.114

Dia. of Crank shaft journals

as per rule 6.423

Dia. of Crank pin

6 3/4"

Size of Crank webs

4 1/2" x 10"

Dia. of thrust shaft under collars

6 3/4"

Dia. of screw

8' 4"

Pitch of Screw

11' 6"

No. of Blades

4

State whether moveable

no

Total surface

29.4

No. of Feed pumps

one

Diameter of ditto

2 5/8"

Stroke

12"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

one

Diameter of ditto

2 5/8"

Stroke

12"

Can one be overhauled while the other is at work

✓

No. of Donkey Engines

one

Sizes of Pumps

5 1/4" x 3 1/2" x 5" duplex

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

In Engine Room one of 2"

Also ejector, drawing from all parts, and with separate suction to engineroom 2' dia.

No. of Bilge Injections

1

sizes

3"

Connected to condenser, or to circulating pump

C.T.

Is a separate Donkey Suction fitted in Engine room & size

yes

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 valves & cocks

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

Succ from stokehold & F.W. tank

How are they protected

strong wood casing

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 (P).)

Manufacturers of Steel

W. Beardmore & Co. Ltd.

Total Heating Surface of Boilers

1347

Is Forced Draft fitted

no

No. and Description of Boilers

one, single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360

Date of test

29. 12. 14

No. of Certificate

931

Can each boiler be worked separately

✓

Area of fire grate in each boiler

39 1/4

No. and Description of Safety Valves to each boiler

2: direct spring

Area of each valve

5.94

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

about 4"

Inside Mean dia. of boilers

12' 6"

Length

10' 0"

Material of shell plates

5

Thickness

1 1/2"

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

d.r. lap

long. seams

double straps

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

1 1/2"

lap of plates or width of butt straps

16" x 2 1/2"

Per centages of strength of longitudinal joint

rivets 86.6

plate 85.5

Working pressure of shell by rules

181.8

Size of manhole in shell

16" x 12"

Size of compensating ring

28" dia x 1"

No. and Description of Furnaces in each boiler

3: plain

Material

5

Outside diameter

36 1/2"

Length of plain part

top 84"

bottom 84"

Thickness of plates

crown 3 1/2"

bottom 4"

Description of longitudinal joint

weld

No. of strengthening rings

3 1/2" x 5" x 3 1/4"

Working pressure of furnace by the rules

189

Combustion chamber plates: Material

5

Thickness: Sides

5"

Back

5"

Top

5"

Bottom

5"

Pitch of stays to ditto: Sides

9" x 8"

Back

9" x 8"

Top

8 3/4" x 8 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

186.2

Material of stays

iron

Area at smallest part

1.928

Area supported by each stay

42

Working pressure by rules

200

End plates in steam space: Material

5

Thickness

1 1/8"

Pitch of stays

18" x 18"

How are stays secured

d.r. & w.

Working pressure by rules

185

Material of stays

5

Area at smallest part

6.22

Area supported by each stay

324

Working pressure by rules

185

Material of Front plates at bottom

5

Thickness

1"

Material of Lower back plate

5

Thickness

1 1/8"

Greatest pitch of stays

14 1/2" x 8"

Working pressure of plate by rules

213.8

Diameter of tubes

3 1/2" ext.

Pitch of tubes

4 3/4" x 4 3/4"

Material of tube plates

5

Thickness: Front

1"

Back

3/2"

Mean pitch of stays

11 1/4"

Pitch across wide water spaces

14 1/2"

Working pressures by rules

F. 182.6

Girders to Chamber tops: Material

5

Depth and thickness of girder at centre

4" x 1 1/4"

Length as per rule

28 1/2"

Distance apart

8 3/4"

Number and pitch of stays in each

two: 8 1/2"

Working pressure by rules

183.2

Steam dome: description of joint to shell

None

% 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

None

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

✓

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Two top & 2 bottom end bolts & nuts; 2 main bearing & 1 set coupling bolts & nuts; 1 set each, Air, Circulating, Feed & Bilge pump valves; 1 each, main & donkey check valve; 1 safety valve spring; bolts & nuts assorted & iron of various sizes.

The foregoing is a correct description,

FOR HALL, RUSSELL & CO., LTD.

James Hunter DIRECTOR.

Manufacturers of Engines & Boilers—

Dates of Survey while building { During progress of work in shops -- } 1914 Oct. 15, 17, 22, 26 -- Nov. 8, 13, 20, 27 -- Dec. 4, 8, 11, 18, 29 -- 1918 Jan. 3, 16, 18, 21, 24, 28, 31 -- Feb. 1, 4, 8, 14, 18 --
{ During erection on board vessel -- } Mar. 2, 7, 12, 19, 20, 22
Total No. of visits 31

Is the approved plan of main boiler forwarded herewith duplicate. retained for

Dates of Examination of principal parts—Cylinders 26 29 18 21 28 Slides 18 21 28 Covers 13 18 3.21 Pistons 13 18 3.28 Rods 13 18 3.21
Connecting rods 13 18 3.21 Crank shaft 28.1.18 Thrust shaft 13 21 24 Tunnel shafts 13 24 28 Screw shaft 16.21.24 Propeller 3.21
Stern tube 18 21 Steam pipes tested 12.3.18 Engine and boiler seatings 2.1.18 Engines holding down bolts 2.3.18
Completion of pumping arrangements 2.3.18 Boilers fixed 2.3.18 Engines tried under steam 22.2.18
Completion of fitting sea connections 8.2.18 Stern tube 8.2.18 Screw shaft and propeller 8.2.18
Main boiler safety valves adjusted 20.3.18 Thickness of adjusting washers Port 3/8 Starb 1/2
Material of Crank shaft I & S Identification Mark on Do. 463 (DAN) Material of Thrust shaft S Identification Mark on Do. 1159A
Material of Tunnel shafts Iron Identification Marks on Do. 1183A Material of Screw shafts Iron Identification Marks on Do. 1160A
Material of Steam Pipes Copper 3 1/2" bore No. 4 B. 10.9 Test pressure 560 lbs per sq inch
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 Yes If so, state name of vessel "Joseph Burghin" Abn Rep No. 12049

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

These Engines and the Boiler, have been constructed under special survey, and in accordance with the Secretary's letters, the Rules, and approved plans. The materials, and workmanship are good, and when completed and properly fitted on board, they were tried under steam with satisfactory results, and are now in good order, and in our opinion entitled to the record L.M.C. 3.18. in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + LMC 3.18.

JWD. 16/4/18. ARK

The amount of Entry Fee ... £ 2 : : When applied for, 13.4.1918
Special ... £ 22 : 4 : :
Donkey Boiler Fee ... £ : : : When received, 15.4.1918
Travelling Expenses (if any) £ : : : 17.4.18

Committee's Minute

TUE APR 16 1918.

Assigned

+ L.H.P. 3.18

MACHINERY CERTIFICATE WRITTEN

FRI. 29 NOV 1929



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