

REPORT ON MACHINERY.

No. 11964.

Received at London Office

THU. 19 JUL 1917

Date of writing Report 14. 4. 1917 When handed in at Local Office 18. 4. 1917

Port of Aberdeen

No. in Survey held at
Reg. Book.

Aberdeen

Date, First Survey 11. 2. 17.

Last Survey

26. 6. 1917

(Number of Visits 24.

Gross 236.60

Net 102.44

Master

Built at Aberdeen

By whom built Hall Russell & Co. Ltd. (No. 608)

When built 1914.

Engines made at

Aberdeen

By whom made

Hall Russell & Co. Ltd. (No. 608)

when made 1914.

Boilers made at

Sunderland

By whom made

George Clark & Co. Ltd. (No. 10532)

when made 1914.

Registered Horse Power

78

Owners

Admiralty

Port belonging to

Nom. Horse Power as per Section 28

78

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

24"

Revs. per minute

115

Dia. of Screw shaft

as per rule 6.911
as fitted 2 1/2"

Material of screw shaft

Steel

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

1 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

Yes

Length of stern bush

2' 6"

Dia. of Tunnel shaft

as per rule 6.210
as fitted 6 1/2"

Dia. of Crank shaft journals

as per rule 6.22
as fitted 6 1/2"

Dia. of Crank pin

6 3/4"

Size of Crank webs

10" x 4 3/4"

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

32 1/2"

No. of Feed pumps

2

Diameter of ditto

2 3/8"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

2 3/8"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

Two

Sizes of Pumps

1/2" 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"

In Holds, &c. Slushwells in Fishholds, one each of 2"

No. of Bilge Injections

1

size

3"

Connected to condenser, or to circulating pump

C. 70

Is a separate Donkey Suction fitted in Engine room & size

Yes 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

from Fishholds & 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

Dates of examination of completion of fitting of Sea Connections

9. 5. 14

of Stern Tube

9. 5. 14

Screw shaft and Propeller

9. 5. 14

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

Yes

worked from

OILERS, &c.—(Letter for record

(S)

Manufacturers of Steel

Total Heating Surface of Boilers

1429 1/2

Is Forced Draft fitted

No

No. and Description of Boilers

One single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

Yes

Date of test

Yes

No. of Certificate

3399

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

48 1/2

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"

Mean dia. of boilers

12' 9"

Length

10' 9"

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Yes

Descrip. of riveting: cir. seams

given 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

plate

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

bottom

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

If stays are fitted with

nuts or rivet heads

Working pressure by rules

End plates in steam space

Pitch of stays to ditto: Sides

Back

Top

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of stays

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of Front plates at bottom

Working pressure of plate by rules

Diameter at smallest part

Area supported by each stay

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Material of stays

Thickness

Material of Lower back plate

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

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

How stayed

stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

Material of flue plates

Thickness

How stayed

Working pressure of plate by rules

Material of stays

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

How stayed

stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

Material of flue plates

Thickness

How stayed

Working pressure of plate by rules

Material of stays

IS A DONKEY BOILER FITTED? ☒

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:—

Two top & 2 bottom end bolts & nuts; 2 main bearing & 1 de coupling bolts & nuts; 1 set each, Air, Circulating, Feed, & Bilge pump valves; 1 main check valve; 1 safety valve spring; 1 propeller; bolts & nuts assorted, and iron of various sizes.

The foregoing is a correct description,

for HALL, RUSSELL & CO. LTD.

James J. Hunter

Manufacturers of Main Engines

Dates of Survey while building { During progress of work in shops - - 1914 Feb. 11, Mar. 2, 21, 28 - Apr. 13, 16, 23, 25, 30 - May 5, 9, 16, 19, 22, 23 -
During erection on board vessel - - June 1, 5, 8, 11, 15, 19, 22, 25, 26 -
Total No. of visits 24.

Is the approved plan of main boiler forwarded herewith ☒

Dates of Examination of principal parts—Cylinders 2, 28, 13, 6, 5 Slides 13, 4, 14 Covers 25, 16, 2 Pistons 21, 28, 25 Rods 21, 28, 25
Connecting rods 21, 28, 25 Crank shaft 21, 28, 13, 20 Thrust shaft 28, 13, 20 Tunnel shafts 28, 13, 20 Screw shaft 13, 25, 20 Propeller 30, 4, 14
Stern tube 13, 9 Steam pipes tested 5, 6, 14 Engine and boiler seatings 14, 3, 14 Engines holding down bolts 22, 1, 8
Completion of pumping arrangements 8, 6, 14 Boilers fixed 23, 5, 14 Engines tried under steam 26, 6, 14
Main boiler safety valves adjusted 19, 6, 14 Thickness of adjusting washers Port 5/16" Starboard 5/16" full
Material of Crank shaft J.S. Identification Mark on Do. 1088 A Material of Thrust shaft S. Identification Mark on Do. 1089 A
Material of Tunnel shafts J. Identification Marks on Do. 1090 A Material of Screw shafts J. Identification Marks on Do. 1091 A
Material of Steam Pipes Copper 3 1/2" bore No. 4, B.W. Test pressure 360 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 NO ☒ If so, state name of vessel ☒

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

These Engines have been constructed under Special Survey and in accordance with the Secretary's Letter, the Rules, and approved plan. The materials & workmanship are good and when completed, they together with the Boiler (Sld Rept No. 2696) have been properly fitted on board and tried under steam with satisfactory results, and are now in good order, and in my opinion entitled to the record L.M.C. 6.14. in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 6.17.

J.M. How
19/7/17

Ridley Sowell

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

The amount of Entry Fee £ 1 : : When applied for, 18. 4. 1914
Special Engines £ 13 : 0 :
Donkey Boiler Fee £ 6 : 0 :
Travelling Expenses (if any) £ : : When received, 11/8/14

Committee's Minute

Assigned

MACHINERY CERTIFICATE
WRITTEN.



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Foundation