

REPORT ON MACHINERY.

No. 9763

Received at London Office

WED. 6 - JUN. 1917

Date of writing Report

10

When handed in at Local Office

5/6/1917 Port of Middlesbrough

To. in Survey held at Middlesbrough

Date, First Survey 24th Jan/17 Last Survey 1st May 1917

Reg. Book. on the steel screw steamer John Gule

(Number of Visits 16-7-17)

Master

Built at Selby

By whom built Cochrane & Sons Ltd

Tons { Gross Net
When built 1917-7

Engines made at Middlesbrough By whom made Richardson, Westgarth & Co. Ltd (N. 42578)

When made 1917-7

Boilers made at Hull

By whom made C. D. Holmes & Co. Ltd (A) C 272

When made 1917-7

Registered Horse Power

Owners British Admiralty

Port belonging to

Com. Horse Power as per Section 28

87

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

13", 23", 37"

Length of Stroke

26"

Revs. per minute

Dia. of Screw shaft

as per rule 7.88

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

Is the propeller boss yes

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

yes

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

3'-0"

Dia. of Tunnel shaft

as per rule 7.04

Dia. of Crank shaft journals

as per rule 7.39

Dia. of Crank pin

7 1/2"

Size of Crank webs 14 3/8 x 4 7/8"

Dia. of thrust shaft under

rollers

7 1/2"

Dia. of screw

9-7 1/2"

Pitch of Screw

11'-0"

No. of Blades

4

State whether moveable No

yes

Total surface

33 sq ft

No. of Feed pumps

1

Diameter of ditto

2 5/8"

Stroke

14 3/4"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

1

Diameter of ditto

2 5/8"

Stroke

14 3/4"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

one 4 3/4" dia

Sizes of Pumps

6", 4 1/4" x 6" duplex

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

Engine Room

two 2" dia

In Holds, &c. One 2" dia in each compartment

all suction also connected to 3" dia

No. of Bilge Injections

one

sizes

3 1/2"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

3" dia

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

Find suction

How are they protected

Strong casing fixed with wire

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

yes

Is it fitted with a watertight door

yes

worked from

yes

BOILERS, &c.—(Letter for record

(S)

Manufacturers of Steel

Total Heating Surface of Boilers

1440 sq ft

Is Forced Draft fitted

no

No. and Description of Boilers

1 S.B.

Working Pressure

200 lb

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

48 sq ft

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

Percentages of strength of longitudinal joint

rivets

plate

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

3 p.f.

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

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

Material of

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

Material of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded? ☒

SPARE GEAR.

State the articles supplied:—

Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of air, feed & steam pump valves, one main & one donkey check valve, two valves for donkey pump, 6 junk ring studs & nuts, one safety valve spring, 3 condenser tubes, one set of fire bars & a quantity of bolts & nuts & iron of various sizes.

The foregoing is a correct description,

of and on behalf of

RICHARDSONS, WESTGARTH & CO., LTD.

Donkey

Manufacturer.

Dates of Survey while building
(During progress of work in shops --)
(During erection on board vessel --)
Total No. of visits

1917 Jan 24 Feb 6.10.15.19.23.27 Mar 3.8.14.16.20.21.28.30 Apr 10.12.21.25 May 1.3.11

See Hull Rpt No 30, 054

22

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 28.3.17 Slides 10.4.17 Covers 10.4.17 Pistons 30.3.17 Rods 30.3.17

Connecting rods 30.3.17 Crank shaft 6.2.17 Thrust shaft 28.3.17 Tunnel shafts None Screw shaft 21.3.17 Propeller 21.3.17

Stern tube 21.3.17 Steam pipes tested 3.7.17 Engine and boiler seatings 23.3.17 Engines holding down bolts 2.7.17

Completion of pumping arrangements 31.7.17 Boilers fixed 7.7.17 Engines tried under steam 11.7.17

Completion of fitting sea connections 23.3.17 Stern tube 23.3.17 Screw shaft and propeller 23.3.17

Main boiler safety valves adjusted 7.7.17 Thickness of adjusting washers 7 3/8 & 7/8

Material of Crank shaft Steel Identification Mark on Do. 5884 AB Material of Thrust shaft Steel Identification Mark on Do. 5866

Material of Tunnel shafts None Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do. 5868

Material of Steam Pipes Ad copper Test pressure 400

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 *Therapy Class*

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

These Engines have been constructed under Special Survey and in accordance with the Rules and Specification. The material and workmanship are good. The Engines have now been sent to Hull where they are to be fitted on board the vessel. The Machinery of this vessel has been properly fitted & secured on board the vessel, the steam pipes tested as above & found sound & good. On completion it was tried on full power for two hours, as required by the Admiralty, & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 215 lbs.

In my opinion the vessel is eligible for this record + L.M.C. 7.17

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 7.17.

The amount of Entry Fee ... £ 14 : 0 :
Special (see Hull Rpt) ... £ 6 : 10 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for,

27/6/17

When received,

26/6/17

19/8

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

FRI 20 JUL 1917

+ L.M.C. 7.17

MACHINERY CERTIFICATE
WRITTEN.



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Foundation