

REPORT ON MACHINERY.

No. 66410

THU. JUL. 16. 1914

JUL 15 1914

Received at London Office

Port of NEWCASTLE-ON-TYNE

of writing Report

When handed in at Local Office

in Survey held at

Date, First Survey 29th Dec 1913 Last Survey 8th July 1914

on the Steel S. K. Abus.

(Number of Visits 2)

Gross 272
Net 101
When built 1914

Master

Built at

By whom built

J. P. Remoldson & Son Ltd

Engines made at

By whom made

J. P. Remoldson & Son Ltd

When made 1914

Boilers made at

By whom made

Riley Bros Ltd

When made 1914

Registered Horse Power

Owners

D. Hurttley & Sons Ltd

Port belonging to Hull

om. Horse Power as per Section 28

53

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

GINES, &c.—Description of Engine

Compound Surface Condensing

of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

15" & 30"

Length of Stroke

21"

Revs. per minute

135

Dia. of Screw shaft

as per rule

6.82"

Material of

Iron

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

No

Is the after end of the liner made water tight

the propeller boss

✓

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

28"

Dia. of Tunnel shaft

as per rule

6.07"

Dia. of Crank shaft journals

as per rule

6.37"

Dia. of Crank pin

6 1/2"

Size of Crank webs

12 x 3 3/8"

Dia. of thrust shaft under

collars

6 1/2"

Dia. of screw

7.3"

Pitch of Screw

9.3"

No. of Blades

4

State whether moveable

No

Total surface

19 sq. ft.

No. of Feed pumps

One

Diameter of ditto

2 5/8"

Stroke

21"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

One

Diameter of ditto

3"

Stroke

21"

Can one be overhauled while the other is at work

✓

No. of Donkey Engines

Two

Sizes of Pumps

5 x 5 x 6, 4 x 2 1/2 x 5

No. and size of

Suctions connected to both Bilge and Donkey pumps

In Engine Room

Two 2" diameter

No. of Bilge Injections

1

size

2 1/2"

Connected to condenser, or to circulating pump

Yes

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

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

✓

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

7/5/14

of Stern Tube

22/5/14

Screw shaft and Propeller

22/5/14

27/5/14

23/6/14

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight floor

✓

worked from

✓

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

See attached report on Boiler

Total Heating Surface of Boilers

1080 sq. ft.

Is Forced Draft fitted

No

No. and Description of Boilers

One Single Ended.

Working Pressure

130 lb. sq. in.

Tested by hydraulic pressure to

260 lb.

Date of test

1/5/14

No. of Certificate

5285

Can each boiler be worked separately

✓

Area of fire grate in each boiler

34 sq. ft.

No. and Description of Safety Valves to

each boiler

No, direct spring

Area of each valve

4.91 sq. in.

Pressure to which they are adjusted

135 lb.

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

14"

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

Per centages of strength of longitudinal joint

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

Thickness of plates

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

End plates in steam space

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of stays

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of Front plates at bottom

Thickness

Diameter 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

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

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

If 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

002038-002050-0016

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No. *None* Description *✓*

Made at

By whom made

When made

Where fixed

Working pressure

tested by hydraulic pressure to

Date of test

No. of Certificate

Fire grate area

Description of Safety

Valves

No. of Safety Valves

Area of each

Pressure to which they are adjusted

Date of adjustment

If fitted with easing gear

If steam from main boilers can enter the donkey boiler

Dia. of donkey boiler

Length

Material of shell plates

Thickness

Range of tensile strength

Descrip. of riveting long. seams

Dia. of rivet holes

Whether punched or drilled

Pitch of rivets

Lap of plating

Per centage of strength of joint

Rivets

Plates

Working pressure of shell by rules

Thickness of shell crown plates

Radius of do.

No. of stays to do.

Dia. of stays

Diameter of furnace Top

Bottom

Length of furnace

Thickness of furnace plates

Description of joint

Working pressure of furnace by rules

Thickness of furnace crown plates

Radius of do.

Stayed by

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

Dates of survey

SPARE GEAR. State the articles supplied:

Two top & two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed & bilge pump valves, assorted bolts & nuts and a few bars of iron.

The foregoing is a correct description,

J. P. RENNOLDSON & SONS LTD.

Manufacturer.

Dates of Survey while building

DIRECTOR.

1913

1914

Dec. 29. Jan 20. 28 Feb. 3. 13. Mar. 16. 26. Apr. 7. 27. May. 1. 7. 8. 14. 27. 29. 7

Jan 2. 4. 8. 11. 15. 18. 22. 23. Jul. 8

24.

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders

5/1. 25/1. 3/2

3/2. 13/2

28/1. 16/3

7/4/14

Pistons

16/3. 7/4/14

Rods

28/1. 13/2

7/4/14

Connecting rods

28/1. 13/2

7/4/14

Crank shaft

16/3/14

Thrust shaft

Stern tube

15/4. 17/5/14

Steam pipes tested

11/6/14

Engine and boiler seatings

3/6/14

Engines holding down bolts

29/5. 3/6/14

Completion of pumping arrangements

18/6/14

Boilers fixed

3/6/14

Engines tried under steam

18/6/14

Main boiler safety valves adjusted

18/6/14

Thickness of adjusting washers

11/32 & 5/16"

Material of Crank shaft

Steel

Identification Mark on Do.

326N 3/6/14

Material of Tunnel shafts

None

Identification Marks on Do.

✓

Material of Screw shafts

Iron

Identification Marks on Do.

do

Material of Steam Pipes

Copper

Test pressure

260 lb per sq. in.

General Remarks

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

The machinery of this vessel has been built under special survey, the materials and workmanship are of good quality, it has been securely fitted on board & satisfactorily tried under full steam. The machinery of this vessel is now in my opinion eligible for record L.M.C. 7. 14 (mch) in the register book.

Boiler plan & report, invoices & 2 forging reports now sent

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 7. 14.

APR 17. 7. 14.

The amount of Entry Fee

£ 1 : 0 :

When applied for,

JUL 15 1914

Special

£ 4 : 8 :

When received,

20/7/14

Donkey Boiler Fee

£ :

Travelling Expenses (if any)

£ :

Committee's Minute

FRI. JUL. 17. 1914

Assigned

+ L.M.C. 7. 14

MACHINERY CERTIFICATE

WRITTEN

George Murdoch

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



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