

Rpt. 4.

REPORT ON MACHINERY.

No. 82560

Date of writing Report 23 Dec 1919

1919

When handed in at Local Office

3 JAN 1920

Received at London Office

3 JAN 1920

No. in Survey held at Lowestoft

Port of Ipswich

Date, First Survey Nov. 18th '18. Last Survey 16 Dec 1919

Reg. Book.

on the Machinery of Steel Drifter "Current"

(Number of Visits 35 (widely fitted on board))

Master

Built at Lowestoft

By whom built

John Chambers Ltd

N^o 499

Tons

Net

When built

1919

Engines made at

Lowestoft

By whom made

John Chambers Ltd

N^o 219

when made

1919.

Boiler made at

Oldbury

By whom made

Edwin Danks & Co Ltd

D 506

when made

1919

Registered Horse Power

Owners

Admiralty

Port belonging to

Nom. Horse Power as per Section 28

43. ✓

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

9½" 15½" 26"

Length of Stroke

18"

Revs. per minute

Dia. of Screw shaft

as per rule 5.72"

Material of

Steel

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

No liner

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' 1"

Dia. of Tunnel shaft

as per rule 4' 8"

Dia. of Crank shaft journals

as per rule 5' 0 4"

Dia. of Crank pin

5½"

Size of Crank webs

10" x 3½"

Dia. of thrust shaft under

collars

5½"

Dia. of screw

6' 9"

Pitch of Screw

8' 6"

No. of Blades

4

State whether moveable

No

Total surface

18 ft

No. of Feed pumps

one

Diameter of ditto

2½"

Stroke

9"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

one

Diameter of ditto

2"

Stroke

9"

Can one be overhauled while the other is at work

✓

No. of Donkey Engines

one

Sizes of Pumps

5½" x 3½" x 5" Duplex

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

In Engine Room

Two 2" x 1

Exeter 2"

In Holds, &c. One 2"

No. of Bilge Injections

one size 2½"

Connected to condenser, or to circulating pump

c.p.p.

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

✓

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

Is the Screw Shaft Tunnel watertight

✓

Is it fitted with a watertight door

✓

worked from

✓

MILERS, &c.—(Letter for record

S)

Manufacturers of Steel

John Spencer & Sons Ltd

Total Heating Surface of Boilers

814 ft²

Is Forced Draft fitted

No

No. and Description of Boilers

One Single Ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

21-8-19

No. of Certificate

419

Can each boiler be worked separately

✓

Area of fire grate in each boiler

30 ft²

No. and Description of Safety Valves to

h boiler

Two Spring Loaded

Area of each valve

3' 9"

Pressure to which they are adjusted

180 lbs

Are they fitted with easing gear

Yes

Greatest distance between boilers or uptakes and bunkers or woodwork

6"

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

be given 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

Working pressure of shell by rules

Size of manhole in shell

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

Sides

Back

Top

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

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

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

across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Strength 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

Material

Thickness of shell plates

Working pressure of shell by rules

Description of longitudinal joint

% of strength of joint

Material

Crown plates

Thickness

How stayed

Superheater. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

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

13. 19.

Water

of stays to ditto

Material of stays

Material

at smallest part

Thickness

Material of Lower back plate

Diameter of tubes

Pitch of tubes

across wide water spaces

Strength of girder at centre

Working pressure by rules

Material

Thickness of shell plates

Working pressure of shell by rules

Material

Crown plates

Thickness

How stayed

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Lloyd's Register Foundation

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— 2 top & 2 bottom end bolts & nuts. 2 main bearing bolts & nuts. 1 set coupling bolts & nuts. 1 set feed pump valves. 1 set helge pump valves. 1 set circulating pump valves. 6 condenser tubes. 12 ferrules. 50 tape packings. 2 doz assorted bolts & nuts. 6 cylinder cover studs & nuts. 6 junk ring bolts & nuts. 1 valve for main cheek. 1 valve for donkey cheek. 1 spring for Safety Valves. 6 gauge glasses with rings. 3 boiler tubes. 1 set firebars with wing bars for both furnaces.

The foregoing is a correct description,

H. Hooper

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1918:— Nov 18. 26 Dec 11 (1918) Jan 1. 9. 15 Mar 12. 26 Apr 8 May 30 June 11. 27 July 9. 17. 23 Aug 12. 29
During erection, on board vessel -- 1919:— May 28. 30. June 11. July 1. 9. Aug 29 Oct 17. 19. 24 Nov 4. 11. 19. 25 Dec 25. 9. 12. 16
Total No. of visits 35

Is the approved plan of main boiler forwarded herewith ☒

Dates of Examination of principal parts—Cylinders 18-11-18 15-1-19 8-5-19 11-6-19 Slides 11-12-18 11-6-19 Covers 11-12-18 15-1-19 Pistons 1-1-19 Rods 12-3-19 11-6-19

Connecting rods 12-3-19 11-6-19 Crank shaft 26-3-19 Thrust shaft 12-3-19 Tunnel shafts ✓ Screw shaft 12-3-19 26-3-19 Propeller 26-3-19

Stern tube 26-3-19 8-5-19 Steam pipes tested 4-11-19 Engine and boiler seatings 1-7-19 Engines holding down bolts 11-11-19

Completion of pumping arrangements 22-12-19 5-1-19 Boilers fixed 17-10-19 Engines tried under steam 3-12-19.

Completion of fitting sea connections 28-5-19. 30-5-19 Stern tube 28-5-19. 30-5-19 Screw shaft and propeller 30-5-19

Main boiler safety valves adjusted 2-12-19. Thickness of adjusting washers $P \frac{1}{2}$ " $S \frac{15}{32}$ "

Material of Crank shaft *Steel* Identification Mark on Do. 4881 JRM Material of Thrust shaft *Steel* Identification Mark on Do. 111 abt

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Steel* Identification Marks on Do. 94 abt

Material of Steam Pipes *Copper* Test pressure 360 lbs.

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 *"Fleet" etc*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under Special Survey and in accordance with the Specification and the Society's Rules. Material & workmanship are sound & good. The Engines together with the Boiler, have been examined whilst being installed in the vessel, afterwards tried under full power working conditions and found satisfactory, Safety Valves adjusted under steam, and is now eligible in our opinion to have the Record + L.M.C. 12-19.*

in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD + L.M.C. 12. 19.

The amount of Entry Fee ... £

Special *See as agreed with admr.*
Donkey Boiler Fee
Ditto machinery board
Travelling Expenses (if any) £

9 : : When applied for, 09 JAN 1920

4 : 10 : When received, 10-4-19 20 JSN

Committee's Minute

Assigned

Robert Rae & A.E. Farmine
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. NOV. 17 1922

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Foundation