

REPORT ON MACHINERY.

No. 29910

Received at London Office

Date of writing Report

18

When handed in at Local Office

18. 4. 1917 Port of

Hull

No. in Survey held at

Hull

Date, First Survey

Apr 6/16

Last Survey

Apr 14th 1917

Reg. Book.

32

Hull

Bellevue

(Number of Visits)

56

Gross

261

Net

102

Master

Built at

Beverley

By whom built

Cook, Walton & Gummell

When built

1917

Engines made at

Hull

By whom made

Amos & Smith L^{td} No. 2820

when made

1917

Boilers made at

Hull

By whom made

Amos & Smith L^{td}

when made

1917

Registered Horse Power

Owners Standard Steam Fishing Co

Port belonging to

Grimsby

Nom. Horse Power as per Section 28

74

Is Refrigerating Machinery fitted for cargo purposes

Yes

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12 $\frac{1}{2}$ " 21 $\frac{1}{2}$ " 35 $\frac{1}{4}$ "

Length of Stroke

24"

Revs. per minute

Dia. of Screw shaft

7 $\frac{1}{2}$ "

Material of

Iron

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

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

Yes

Length of stern bush

34"

Dia. of Tunnel shaft

as per rule 6 $\frac{1}{4}$ "as fitted 6 $\frac{3}{4}$ "

Dia. of Crank shaft journals

as per rule 6 $\frac{1}{2}$ "

as fitted 7"

Dia. of Crank pin

7"

Size of Crank webs

13 $\frac{1}{2}$ " 4 $\frac{1}{2}$ "

Dia. of thrust shaft under

collars

No. of Feed pumps

1

Diameter of ditto

2 $\frac{3}{4}$ "

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

1

Diameter of ditto

2 $\frac{3}{4}$ "

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

6 $\frac{1}{2}$ " 4 $\frac{1}{2}$ " 6"

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

In Engine Room

2

In Holds, &c.

1—2"

Isolation to forecabin

1—2"

main

fish room

1—2"

to main sluic well

No. of Bilge Injections

1

sizes

3"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

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

4—2" hold and sluic well pipes

How are they protected

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

Yes

Is it fitted with a watertight door

Yes

worked from

BOILERS, &c.—(Letter for record

S.)

Manufacturers of Steel

John Spencer & Sons L^{td}

Total Heating Surface of Boilers

1267 $\frac{1}{2}$ 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

24.1.17

No. of Certificate

3186

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

37.6 ft²

No. and Description of Safety Valves to

each boiler

2 spring loaded

Area of each valve

4.9"

Pressure to which they are adjusted

180 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

8"

Mean dia. of boilers

12' 6"

Length

10' 3 $\frac{3}{4}$ "

Material of shell plates

S.

Thickness

1 $\frac{1}{32}$ "

Range of tensile strength

28/32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R.

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

1 $\frac{1}{16}$ "

Pitch of rivets

7"

Lap of plates or width of butt straps

15 $\frac{1}{16}$ "

Per centages of strength of longitudinal joint

rivets 91.2

plate 84.82

Working pressure of shell by rules

180

Size of manhole in shell

16" 12"

Size of compensating ring

30" 40" 1 $\frac{1}{2}$ "

No. and Description of Furnaces in each boiler

2 plain

Material

S.

Outside diameter

3' 8 $\frac{5}{8}$ "

Length of plain part

top 78"

bottom 72 $\frac{1}{2}$ "

Thickness of plates

crown 1 $\frac{1}{16}$ "bottom 1 $\frac{1}{16}$ "

Description of longitudinal joint

Welded

No. of strengthening rings

Yes

Working pressure of furnace by the rules

185

Combustion chamber plates: Material

S.

Thickness: Sides

1 $\frac{1}{16}$ "

Back

1 $\frac{1}{16}$ "

Top

1 $\frac{1}{16}$ "

Bottom

3 $\frac{1}{4}$ "

Pitch of stays to ditto: Sides

10' 7"

Back

9 $\frac{1}{2}$ ' 9"

Top

9 $\frac{1}{2}$ ' 7"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

191

Material of stays

S.

Area at smallest part

2.066

Area supported by each stay

85.5

Working pressure by rules

217

End plates in steam space:

Material

S.

Thickness

1 $\frac{1}{32}$ "

Pitch of stays

16 $\frac{1}{4}$ " 16 $\frac{1}{2}$ "

How are stays secured

Washers

Working pressure by rules

187.5

Area at smallest part

5.055

Area supported by each stay

268

Working pressure by rules

196

Material of Front plates at bottom

S.

Thickness

3 $\frac{1}{32}$ "

Material of Lower back plate

S.

Thickness

1 $\frac{1}{16}$ "

Greatest pitch of stays

13 $\frac{1}{4}$ " 9 $\frac{1}{2}$ "

Working pressure of plate by rules

217

Diameter of tubes

3 $\frac{1}{2}$ "

Pitch of tubes

4 $\frac{1}{4}$ " 4 $\frac{1}{8}$ "

Material of tube plates

S.

Thickness: Front

3 $\frac{1}{32}$ "

Back

2 $\frac{1}{32}$ "

Mean pitch of stays

11.25

Pitch across wide water spaces

13 $\frac{3}{4}$ "

Working pressures by rules

190

Girders to Chamber tops: Material

S.

Depth and

thickness of girder at centre

8 $\frac{3}{8}$ " 9 $\frac{1}{2}$ " 1 $\frac{1}{4}$ "

Length as per rule

2' 9"

Distance apart

8 $\frac{1}{2}$ " 9 $\frac{1}{2}$ "

Number and pitch of stays in each

3 - 7"

Working pressure by rules

180

Steam dome: description of joint to shell

Yes

% of strength of joint

Yes

Diameter

Yes

Thickness of shell plates

Yes

Material

Yes

Description of longitudinal joint

Yes

Diam. of rivet holes

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

✓

SPARE GEAR. State the articles supplied:— Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set of coupling bolts and nuts, one set each feed and bilge pump valves, iron of various sizes, a quantity of assorted bolts and nuts etc.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

Manufacturer.

Secretary.

Dates of Survey while building { During progress of work in shops -- 1916: Apr 6, 7, 11, 13, 18, 29 May 6, 13, 22, 27 Jun 3, 10, 17, 24, Jul 3, 22, 31, Aug 5, 12, 19, 26 Sep 29.
During erection on board vessel -- Oct 14, 23, 29, Nov 6, 13, 17, 27 Dec 1, 4, 9, 11, 16, 19, 28 1917: Jan 2, 5, 8, 13, 18, 24, 29, Feb 1, 6, 8, 13, 22, Mar 1, 10, 16, 27, Apr 4, 10, 14.
Total No. of visits 56

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 27.11.16 Slides 9.12.16 Covers 27.11.16 Pistons 1.12.16 Rods 1.12.16

Connecting rods 9.12.16 Crank shaft 2.1.17 Thrust shaft 2.1.17 Tunnel shafts ✓ Screw shaft 29.9.16 Propeller 29.9.16

Stern tube 29.9.16 Steam pipes tested 13.2.17 Engine and boiler seatings 29.9.16 Engines holding down bolts 1.2.17

Completion of pumping arrangements 14.4.17 Boilers fixed 6.2.17 Engines tried under steam 10.3.17

Completion of fitting sea connections 29.9.16 Stern tube 29.9.16 Screw shaft and propeller 29.9.16

Main boiler safety valves adjusted 10.3.17 Thickness of adjusting washers P. $\frac{3}{8}$ " S. $\frac{5}{16}$ "

Material of Crank shaft S. Identification Mark on Do. 2.1.17 G.R. Material of Thrust shaft Iron Identification Mark on Do. 2.1.17 G.R.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 29.9.16 G.R.

Material of Steam Pipes S.D. Copper ✓ Test pressure 400 lbs. ✓

Is an installation fitted for burning oil fuel ✓ 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 Yes

Is this machinery duplicate of a previous case Yes If so, state name of vessel "Simpson" ✓

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

The machinery of this vessel has been constructed under special survey in accordance with the approved plans and the rules of this Society; the material and workmanship are good; the boiler and steam pipes have been tested as above by hydraulic pressure and found sound and good. The machinery has been properly fitted and secured on board and on completion tried under steam and found satisfactory. The safety valves have been adjusted under steam and tested for accumulation which did not exceed 185 lbs. per sq. inch.

In my opinion the vessel is eligible for the record L.M.C. 4.17

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 4.17.

The amount of Entry Fee ... £ 1 : - :
Special ... £ 11 : 2 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : 2 :
When applied for, 19.4.1917
When received, 30.4.1917

Geo. Allan
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 24 APR. 1917

Assigned

+ L.M.C. 4.17

MACHINERY CERTIFICATE
WRITTEN



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Lloyd's Register
Foundation