

REPORT ON MACHINERY.

No. 19535

FRI. 25 OCT 1907

Port of Hull

Received at London Office

19

No. in Survey held at

Hull

Date, first Survey

May 29th

Last Survey

22nd Oct

1907

Reg. Book.

42 Saffron the

Steel S. K. Marjorie

(Number of Visits 31)

Tons

Gross 294

Net 113

Master

Built at

Hull

By whom built

Earles & Co. Ltd

When built 1907

Engines made at

By whom made

when made 1907

Boilers made at

By whom made

when made 1907

Registered Horse Power

Owners

Fleetwood Steam Fishing Co. Ltd

Port belonging to

Fleetwood

Nom. Horse Power as per Section 28

88

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 $\frac{3}{4}$ " - 22" - 36"

Length of Stroke 27"

Revs. per minute 105

Dia. of Screw shaft

as per rule 7 $\frac{1}{2}$ "

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

one 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

✓

If two

liners are fitted, is the shaft lapped or protected between the liners

✓

Length of stern bush 35 $\frac{1}{2}$ "

Dia. of Thrust shaft

as per rule 6 $\frac{7}{8}$ "

Dia. of Crank shaft journals

as per rule 7 $\frac{1}{2}$ "Dia. of Crank pin 7 $\frac{3}{4}$ "Size of Crank webs 14 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ "

Dia. of thrust shaft under

collars 7 $\frac{3}{4}$ "Dia. of screw 9 $\frac{1}{2}$ "Pitch of Screw 11 $\frac{1}{2}$ "

No. of Blades 4

State whether moveable

No

Total surface

29 ft

No. of Feed pumps 2

Diameter of ditto 2 $\frac{1}{2}$ "

Stroke 14"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 2

Diameter of ditto 2 $\frac{1}{2}$ "

Stroke 14"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines Two

Sizes of Pumps

one 5" Centrifugal

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

In Engine Room

Two two inch

In Holds, &c.

one 2" from slush well. one 2"

from fore compartment. and ejector suction from all parts of ship

No. of Bilge Injections 1

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

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 3"

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

hold suction

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

Dates of examination of completion of fitting of Sea Connections

21.10.07

of Stern Tube

21.10.07

Screw shaft and Propeller

21.10.07

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

✓

worked from

✓

BOILERS, &c.—(Letter for record 5)

Manufacturers of Steel

Beardmore & Co.

Total Heating Surface of Boilers 1560 ft²

Is Forced Draft fitted

No

No. and Description of Boilers

One cyl. multi

Working Pressure 180 lbs

Tested by hydraulic pressure to 360 lbs

Date of test 13.9.07

No. of Certificate 1595

Can each boiler be worked separately

✓

Area of fire grate in each boiler

36 ft²

No. and Description of Safety Valves to

each boiler Two Spring

Area of each valve 4.9 ft²

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

11"

Mean

dia. of boilers 13 $\frac{1}{2}$ "Length 10 $\frac{1}{2}$ "

Material of shell plates

Steel

Thickness 1 $\frac{3}{8}$ "

Range of tensile strength

28 - 32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

L D

long. seams D. B. S. & L. R.

Diameter of rivet holes in long. seams

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

Pitch of rivets

7 $\frac{3}{8}$ "

Lap of plates or width of butt straps

16 $\frac{3}{4}$ "

Per centages of strength of longitudinal joint

rivets 85.8

Working pressure of shell by rules 180 lbs

Size of manhole in shell 16" x 12"

Size of compensating ring

3 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ "

No. and Description of Furnaces in each boiler

2 Deighlons

Material Steel

Outside diameter 4 $\frac{1}{2}$ "

Length of plain part

top

Thickness of plates

crown 5"

Description of longitudinal joint

Welded

No. of strengthening rings

✓

Length of plain part

bottom

Thickness of plates

bottom 8"

Description of longitudinal joint

Welded

No. of strengthening rings

5

Working pressure of furnace by the rules

199 lbs

Combustion chamber plates: Material Steel

Thickness: Sides 5"

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

Top 5"

Bottom 5"

Pitch of stays to ditto: Sides 9 $\frac{1}{2}$ " x 8"Back 9 $\frac{1}{2}$ " x 8"

Top 9" x 8"

If stays are fitted with nuts or riveted heads

Nuts

Material of stays Steel

Diameter at smallest part 1 $\frac{1}{2}$ "Area supported by each stay 76 ft²

Working pressure by rules 186 lbs

End plates in steam space:

Material Steel

Thickness 1 $\frac{1}{8}$ "Pitch of stays 18" x 17 $\frac{3}{8}$ "

How are stays secured

d n s

Working pressure by rules 181 lbs

Material of stays Steel

Diameter at smallest part 2 $\frac{3}{16}$ "Area supported by each stay 312.75 ft²

Working pressure by rules 206 lbs

Material of Front plates at bottom Steel

Thickness 1 $\frac{5}{16}$ "

Material of Lower back plate Steel

Thickness 7"

Greatest pitch of stays 14 $\frac{1}{2}$ " x 8"

Working pressure of plate by rules 193 lbs

Diameter of tubes 3 $\frac{1}{2}$ "Pitch of tubes 4 $\frac{1}{4}$ " x 5 $\frac{1}{8}$ "

Material of tube plates Steel

Thickness: Front 1 $\frac{5}{16}$ "Back 1 $\frac{3}{16}$ "Mean pitch of stays 9 $\frac{7}{8}$ "Pitch across wide water spaces 14 $\frac{1}{2}$ "

Working pressures by rules 182 lbs

Girders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 9 $\frac{1}{2}$ " x 13 $\frac{1}{4}$ "Length as per rule 3 $\frac{1}{2}$ - 0"

Distance apart 9"

Number and pitch of stays in each 3 - 8"

Working pressure by rules 216 lbs

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

Material of flue plates

Thickness

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

100-396800-007

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ 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 _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

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 coupling bolts and nuts, one set air, feed and bilge pump valves, and a quantity of assorted bolts nuts etc.*

The foregoing is a correct description,

FOR EARLE'S
SHIPBUILDING & ENGINEERING CO. LIMITED.
F. J. Palethorpe

Dates of Survey while building { During progress of work in shops— 1907—May 29, Jun 5, 12, 17, 19, 22, 26, 29, Jul 4, 8, 17, 23, 30, Aug 20, 25, 30, Sep 4, 9, 12.
During erection on board vessel— Sep 13, 18, 19, 24, 30, Oct 4, 5, 7, 10, 18, 21, 22.
Total No. of visits 31.

Is the approved plan of main boiler forwarded herewith *Hull Rpt No 19526*

Dates of Examination of principal parts—Cylinders 4 9 07 Slides 18 9 07 Covers 4 10 07 Pistons 24 9 07 Rods 24 9 07

Connecting rods 24 9 07 Crank shaft 24 9 07 Thrust shaft 4 10 07 Tunnel shafts _____ Screw shaft 9 9 07 Propeller 9 9 07

Stern tube 9 9 07 Steam pipes tested 7 10 07 Engine and boiler seatings 18 9 07 Engines holding down bolts 10 10 07

Completion of pumping arrangements 22 10 07 Boilers fixed 10 10 07 Engines tried under steam 22 10 07

Main boiler safety valves adjusted 10 10 07 Thickness of adjusting washers $\frac{3}{8}$ l. $\frac{5}{16}$ l.

Material of Crank shaft *Steel* Identification Mark on Do. *1939 ATG* Material of Thrust shaft *Steel* Identification Mark on Do. *102 GAH*

Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts *Steel* Identification Marks on Do. *102 GAH*

Material of Steam Pipes *Solid drawn Copper* Test pressure *400 lbs* □

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines and boiler of this vessel have been constructed under special survey in accordance with the Society's Rules, the materials and workmanship are good. The boiler tested by hydraulic pressure and with the engines fitted on board and tested under steam, they are now in good order and safe working condition, and respectfully submitted as being eligible in my opinion to be classed with the notation of *L.M.C. 10 07* in the Register Book*

These engines and boiler are similar to those fitted on the Lark Hull Report No 19526

It is submitted that this vessel is eligible for THE RECORD. *L.M.C. 10.07.*

The amount of Entry Fee. £ 1 : : : When applied for, 24/10/07

Special £ 13 : 4 : : When received, 27.11.07

Donkey Boiler Fee £ : : : : 27.11.07

Travelling Expenses (if any) £ : : : : 27.11.07

Committee's Minute TUES. 29 OCT 1907

Assigned *+ L.M.C. 10.07*

James Barclay
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
25.10.07

