

REPORT ON MACHINERY.

No. 26953

Date of writing Report 19th Nov. 1913. When handed in at Local Office

Received at London Office

No. in Survey held at Hull.

Reg. Book

304 on the steel S.E.K. "Lord Londesborough."

26th Nov 1913 Port of Hull.

THU. NOV. 27. 1913

Date, First Survey Aug 21st

Last Survey

Nov 17th 1913

(Number of Visits 18)

Master

Built at

Selly.

By whom built

Cochrane & Sons Ltd

Tons

Gross 307

Net 124

When built

1913.

Engines made at

Hull.

By whom made

Amos & Smith Ltd

when made

1913.

Boilers made at

Hull.

By whom made

Amos & Smith Ltd

when made

1913.

Registered Horse Power

Owners

Yorkshire ste. Fishing Co

Port belonging to

Hull.

Nom. Horse Power as per Section 28

90.

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

13-22 $\frac{3}{4}$ -37.

Length of Stroke

26.

Revs. per minute

Dia. of Screw shaft

as per rule 7.94

Material of

screw shaft

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

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

-

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 7.02

Dia. of Crank shaft journals

as per rule 7.37

Dia. of Crank pin

7 $\frac{1}{2}$ "Size of Crank web 4 $\frac{3}{4}$ " x 4 $\frac{3}{4}$ "

collars

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

Dia. of screw

9'-9"

Pitch of Screw

11'-3"

No. of Blades

4.

State whether moveable

no.

Total surface

34 $\frac{1}{2}$ sq

No. of Feed pumps

1

Diameter of ditto

2 $\frac{7}{8}$ "

Stroke

12"

Can one be overhauled while the other is at work

yes.

No. of Bilge pumps

1.

Diameter of ditto

2 $\frac{7}{8}$ "

Stroke

12"

Can one be overhauled while the other is at work

-

No. of Donkey Engines

one.

Sizes of Pumps

6" x 4 $\frac{1}{4}$ " x 6" Duplex.

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

In Engine Room

Two. 2"

One for

One aft.

In Holds, &c.

Three - 2"

Fishroom. Forepeak

and Mashwell.

2"

jectors from all bilges.

No. of Bilge Injections

1 size

3"

Connected to condenser, or to circulating pump

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

done.

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 Suctions

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

24.9.13.

of Stern Tube

29.9.13.

Screw shaft and Propeller

29.9.13.

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

Mechanical Works Schulz-Knaack-Huckel.

Total Heating Surface of Boilers

1511

Is Forced Draft fitted

no.

No. and Description of Boilers

One Single-ended.

Working Pressure

200 lbs.

Tested by hydraulic pressure to

400 lbs.

Date of test

28.10.13.

No. of Certificate

2030.

Can each boiler be worked separately

yes.

each boiler

Two. Spring-boded.

Area of fire grate in each boiler

4.9 sq

No. and Description of Safety Valves to

each boiler

Two. Spring-boded.

Area of each valve

4.9 sq

Pressure to which they are adjusted

200 lbs.

Are they fitted with easing gear

yes.

Smallest distance between boilers or uptakes and bunkers or woodwork

7"

Mean dia. of boilers

13-11 $\frac{3}{8}$ "

Length

10-7 $\frac{3}{4}$ "

Material of shell plates

S.

Thickness

1 $\frac{3}{16}$ "

Range of tensile strength

29-33.

Are the shell plates welded or flanged

-

Descrip. of riveting: cir. seams

BRd.

long. seams

10 B.S. Spikes

Diameter of rivet holes in long. seams

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

Pitch of rivets

8 $\frac{3}{4}$ "

Lap of plates or width of butt straps

17 $\frac{3}{4}$ "

Per centages of strength of longitudinal joint

rivets 87.85.

plate 85.71.

Working pressure of shell by rules

200 lbs.

Size of manhole in shell

16 x 12.

Size of compensating ring

40 x 30 x 1 $\frac{3}{16}$ "

No. and Description of Furnaces in each boiler

3 plain

Material

S.

Outside diameter

3'-4 $\frac{1}{8}$ ".

Length of plain part

top 6'-6"

bottom 6'-6"

Thickness of plates

crown 13"

bottom 16"

Description of longitudinal joint

Welded.

No. of strengthening rings

yes.

Working pressure of furnace by the rules

206.

Combustion chamber plates: Material

S.

Thickness: Sides

11 $\frac{1}{16}$ "

Back

23 $\frac{1}{16}$ "

Top

11 $\frac{1}{16}$ "

Bottom

13 $\frac{1}{16}$ "

Pitch of stays to ditto: Sides

9 $\frac{3}{4}$ " x 7 $\frac{1}{4}$ "

Back

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

Top

7 $\frac{1}{4}$ " x 9 $\frac{1}{2}$ "

stays are fitted with nuts or riveted heads

nuts.

Working pressure by rules

210.

Material of stays

S.

Area at smallest part

2.066.

Area supported by each stay

81.81.

Working pressure by rules

217.

End plates in steam space:

Material

S.

Thickness

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

Pitch of stays

17 $\frac{1}{4}$ " x 17 $\frac{1}{4}$ "

Are stays secured

yes.

Working pressure by rules

201.

Material of stays

S.

Area at smallest part

7.24.

Area supported by each stay

315.862

Working pressure by rules

238.

Material of Front plates at bottom

S.

Thickness

1"

Material of Lower back plate

S.

Thickness

29 $\frac{1}{32}$ "

Greatest pitch of stays

13 $\frac{3}{4}$ " x 9 $\frac{1}{8}$ "

Working pressure of plate by rules

217.

Diameter of tubes

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

Pitch of tubes

5' x 4 $\frac{3}{4}$ "

Material of tube plates

S.

Thickness: Front

1"

Back

27 $\frac{1}{32}$ "

Mean pitch of stays

12 $\frac{1}{2}$ " x 4 $\frac{3}{4}$ ".

Pitch across wide water spaces

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

Working pressures by rules

203.

Girders to Chamber tops: Material

S.

Depth and

thickness of girder at centre

9 $\frac{3}{4}$ " x 2"

Length as per rule

36"

Distance apart

Working pressure by rules

204.

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

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, nuts, etc.*

The foregoing is a correct description,

FOR AMOS & SMITH LTD,

W. S. Wade

Manufacturer.

Managing Director,

Dates of Survey while building { During progress of work in shops - - } *1913. Aug 21. Sep 13. 25. 29. Oct 7. 16. 17. 21. 23. 28. 31. Nov. 1. 7. 8. 10. 13.*
{ During erection on board vessel - - - } *Nov 15. 17*
Total No. of visits *18.*

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

" " " donkey " " " *yes*

Dates of Examination of principal parts—Cylinders *13.9.13* Slides *13.9.13* Covers *13.9.13* Pistons *29.9.13* Rods *29.9.13*
Connecting rods *7.10.13* Crank shaft *23.10.13* Thrust shaft *23.10.13* Tunnel shafts *✓* Screw shaft *25.9.13* Propeller *25.9.13*
Stern tube *25.9.13* Steam pipes tested *7.11.13* Engine and boiler seatings *29.9.13* Engines holding down bolts *8.11.13*
Completion of pumping arrangements *8.11.13* Boilers fixed *31.10.13* Engines tried under steam *10.11.13*
Main boiler safety valves adjusted *10.11.13* Thickness of adjusting washers *AV $\frac{9}{16}$ " FV $\frac{3}{8}$ "*

Material of Crank shaft *S.* Identification Mark on Do. *1187* Material of Thrust shaft *S.* Identification Mark on Do. *1187*

Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *S.* Identification Marks on Do. *1187*

Material of Steam Pipes *Copper solid drawn* Test pressure *400lbs. hyd. pressure*

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 *No.* If so, state name of vessel *✓*

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 Rules. The materials and workmanship are sound and good. The boiler tested by hydraulic pressure and with the engines secured 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 LMC 11.13 in the Register book.*

Enclosed is plan of alteration to pumping plan, also letter from builders respecting same.

It is submitted that this vessel is eligible for THE RECORD. + LMC 11.13.

The amount of Entry Fee ... £ 1 : : When applied for, *26.11.13.*
Special ... £ 13 : 10 : :
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : 4 : : When received, *28.11.13.*

Committee's Minute

FRI. NOV. 28. 1913

Assigned

L.M.C. 11.13

MACHINERY CERTIFICATE WRITTEN.

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



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