

## REPORT ON MACHINERY.

No. 17198

Port of Hull

SAI. 23 SEP 1905

Received at London Office

19

No. in Survey held at

Hull

Date, first Survey

Mar. 17<sup>th</sup>

Last Survey

9<sup>th</sup> Sept

1905

g. Book.

79 on the Steel S. K. St. George

(Number of Visits 39)

Master

Built at Selby

By whom built

Messrs Cochrane Sons

When built

1905

Engines made at

Hull

By whom made

Messrs Charles D. Holmes &amp; Co

when made

1905

Boilers made at

Hull

By whom made

Messrs Charles D. Holmes &amp; Co

when made

1905

Registered Horse Power

Owners

Grimsby Victor Steam Fishing Co's Port belonging to Grimsby

Nom. Horse Power as per Section 28

69

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

MACHINES, &amp;c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12 1/2" ~ 22" ~ 35"

Length of Stroke

24"

Revs. per minute

110

Dia. of Screw shaft

as per rule 7 1/2"

Material of

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

Is the propeller boss

Yes

If the liner is in more than one length are the joints burned

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

30 1/2"

Dia. of Thrust shaft

as per rule 6 1/2"

Dia. of Crank shaft journals

as per rule 6 1/2"

Dia. of Crank pin

6 1/8"

Size of Crank webs

13 1/2" x 4 1/2"

Dia. of thrust shaft under

collars

6 1/8"

Dia. of screw

8 1/2"

Pitch of screw

11' 0"

No. of blades

4

State whether moveable

No

Total surface

28 sq

No. of Feed pumps

1

Diameter of ditto

2 1/8"

Stroke

24"

Can one be overhauled while the other is at work

No. of Bilge pumps

1

Diameter of ditto

2 1/8"

Stroke

24"

Can one be overhauled while the other is at work

No. of Donkey Engines

One

Sizes of Pumps

2 3/4" x 5"

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

In Engine Room

Two 2"

In Holds, &amp;c.

One 2" to slush well, &amp;

Ejector suction from Eng. Room Bilge hold, with discharge on deck

No. of bilge injections

1

sizes

3"

Connected to condenser, or to circulating pump

pump

Is a separate donkey suction fitted in Engine room &amp; 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

0

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

Cold 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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

before launching

Is the screw shaft tunnel watertight

None

Is it fitted with a watertight door

worked from

BOILERS, &amp;c.—

(Letter for record 8)

Total Heating Surface of Boilers

1120 sq

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

22.8.05

Can each boiler be worked separately

Area of fire grate in each boiler

32.9 sq

No. and Description of safety valves to

each boiler

Two Spring

Area of each valve

3.910

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

6"

Mean dia. of boilers

12' 6"

Length

10' 0"

Material of shell plates

Steel

Thickness

1 1/2"

Range of tensile strength

29.32

Are they welded or flanged

Descrip. of riveting: cir. seams

L. D.

long. seams

D. B. S. L. R.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

7"

Lap of plates or width of butt straps

15"

Per centages of strength of longitudinal joint

rivets

86.5

plate

85.26

Working pressure of shell by rules

185 lbs

Size of manhole in shell

16 x 12"

Size of compensating ring

7" x 1 1/2"

No. and Description of Furnaces in each boiler

Two Holmes

Material

Steel

Outside diameter

3' 7"

Length of plain part

top

Thickness of plates

crown

1 1/2"

Description of longitudinal joint

Welded

No. of strengthening rings

4 Cor.

Working pressure of furnace by the rules

198 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

23/32"

Back

11/16"

Top

23/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

9 x 8 1/2"

Back

9 x 8 3/4"

Top

8 1/2 x 8 3/4"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

194 lbs

Material of stays

Steel

Diameter at smallest part

1 1/8"

Area supported by each stay

105.75 sq

Working pressure by rules

204 lbs

End plates in steam space:

Material

Steel

Thickness

1 1/2"

Pitch of stays

17 1/2" 17 1/2"

How are stays secured

Screwed into both end plates

Working pressure by rules

185 lbs

Material of stays

Steel

Diameter at smallest part

6 1/2"

Area supported by each stay

306.25 sq

Working pressure by rules

202 lbs

Material of Front plates at bottom

Steel

Thickness

7/8"

Material of Lower back plate

Steel

Thickness

5/8"

Greatest pitch of stays

14 3/4"

Working pressure of plate by rules

183 lbs

Diameter of tubes

3 1/4"

Pitch of tubes

4 7/8"

Material of tube plates

Steel

Thickness: Front

7/8"

Back

7/8"

Mean pitch of stays

9 1/4"

Pitch across wide water spaces

14 1/2"

Working pressures by rules

180 lbs

Girders to Chamber tops: Material

Iron

Depth and

thickness of girder at centre

8 1/2" 9 1/2" 13 1/4"

Length as per rule

2' 7"

Distance apart

8 1/2" 10"

Number and pitch of Stays in each

2- 8 1/2"

Working pressure by rules

202 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

Yes

No

No

No

No

No

No

No

No

No



## DONKEY BOILER—

No.

Description

Made at

By whom made

When made

Where fixed

Working pressure

tested by hydraulic pressure to

No. of Certificate

Fire grate area

Description of safety valves

No. of safety valves

Area of each

Pressure to which they are adjusted

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

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

Thickness of furnace crown plates

Stayed by

Working pressure of shell by rules

Working pressure of furnace by rules

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

## 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 each air, circulating feed and bilge pump valves, a quantity of assorted bolts, nuts etc

The foregoing is a correct description,

Charles D. Holmes  
Manufacturer.

Dates  
of Survey  
while  
buildingDuring progress of  
work in shops—During erection on  
board vessel—

Total No. of visits

1905:—Mar 17/28 Apr 4. 12 May 2. 9. 10. 16. 18. 23. 29. 31 Jun 2. 8. 9. 15. 20. 22. 26 July 4.

July 6. 12. 15. 17. 20. 21. 26. 27 Aug 15. 22. 22. 23. 25. 30. 31. Sep 3. 5. 6. 9.

39.

Is the approved plan of main boiler forwarded herewith

Yes

" " " donkey " " "

## General Remarks

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

The machinery & boiler of this vessel have been inspected throughout construction in accordance with the Society's Rules. The material and workmanship are good. The boiler tested by hydraulic pressure, and with the engines placed 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  $\pm$  L.M.C. 9.05 in the Register Book.

It is submitted that  
this vessel is eligible for  
THE RECORD  $\pm$  L.M.C. 9.05.

Pms.

23.9.05

23.9.05

The amount of Entry Fee..

£

1

:

:

When applied for,

Special

£

10

:

7

22/9/05

Donkey Boiler Fee

£

-

:

-

When received,

Travelling Expenses (if any)

£

-

:

-

29/9/05

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

13.9.05

Committee's Minute

TUES. 26 SEP 1905

Assigned

 $\pm$  L.M.C. 9.05

MACHINERY CERTIFICATE  
WRITTEN.



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Lloyd's Register  
Foundation

Certificate (if required) to be sent to  
Hull