

REPORT ON MACHINERY.

No. 16618

Port of Hull

Received at London Office

JUES. 21 FEB 1905

No. in Survey held at
Reg. Book.

Date, first Survey

Nov. 1/04

Last Survey

Feb. 10th 1905

26 Supp on the

Se. H. Nautilus

(Number of Visits 33)

Tons } Gross 255
Net 98

Master

Built at

Selby

By whom built

Bochane Sons

When built 1905

Engines made at

Hull

By whom made

Charles O. Holmes & Co

when made 1905

Boilers made at

Hull

By whom made

Charles O. Holmes & Co

when made 1905

Registered Horse Power

Owners

H. P. Aspeslagh

Port belonging to Ostend

Nom. Horse Power as per Section 28

754 71

Is Refrigerating Machinery fitted

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Tri Compound

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders

13" - 2 1/2" - 35"

Length of Stroke

24"

Revs. per minute 112

Dia. of Screw shaft

as per rule 7.28"

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

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 36"

Dia. of Thrust shaft

as per rule 6.74"

Dia. of Crank shaft journals

as per rule 7.08"

Dia. of Crank pin 7 1/4"

Size of Crank webs 13 3/4" x 4 7/8"

Dia. of thrust shaft under

collars 7 1/4"

Dia. of screw 8' - 6"

Pitch of screw 11' - 0"

No. of blades 4

State whether moveable

No

Total surface

27 1/2 sq ft

No. of Feed pumps

One

Diameter of ditto 2 3/8"

Stroke 14 1/4"

Can one be overhauled while the other is at work

No. of Bilge pumps

One

Diameter of ditto 2 3/8"

Stroke 14 1/4"

Can one be overhauled while the other is at work

No. of Donkey Engines

One

Sizes of Pumps 3" x 4 3/4"

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

In Engine Room

Three

2"

In Holds, &c. One 2" to each hold, and

slush well, Ejector suction from eng. 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 & 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

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

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, &c.—

(Letter for record 3)

Total Heating Surface of Boilers

1120 sq ft

Is forced draft fitted

No

No. and Description of Boilers

One Cyl. Multi.

Working Pressure 200 lbs

Tested by hydraulic pressure to 400 lbs

Date of test 18. 1. 05 Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of safety valves to

each boiler

Two Spring

Area of each valve 3.9 sq ft

Pressure to which they are adjusted

205 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

4"

Mean dia. of boilers

12' - 3"

Length 10' - 1"

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. O. R.

long. seams

O. B. S. L. R.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

7 9/16"

Lap of plates or width of butt straps

17 1/2"

Per centages of strength of longitudinal joint

rivets 86.5"

plate 85.1"

Working pressure of shell by rules

208 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 23"

Description of longitudinal joint

Welded

No. of strengthening rings

Holmes

bottom

Thickness of plates

23"

Back 11"

Top 23"

Bottom 23"

Working pressure of furnace by the rules

252 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

23"

Back

11"

Top

23"

Bottom

23"

Pitch of stays to ditto: Sides

9"

Back 9" x 8 3/4"

Top

8 1/2"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules 207 lbs

Material of stays

Steel

Diameter at smallest part

1.62

Area supported by each stay

81 sq ft

Working pressure by rules

230 lbs

Material

Steel

Thickness

1 1/2"

Pitch of stays

17" x 17"

How are stays secured

O. B. W. S.

Working pressure by rules

207 lbs

Material of stays

Steel

Diameter at smallest part

2 3/16"

Area supported by each stay

289 sq ft

Working pressure by rules

219 lbs

Material of Front plates at bottom

Steel

Thickness

1 1/2"

Material of Lower back plate

Steel

Thickness

1 1/2"

Material of Lower back plate

Steel

Thickness

1 1/2"

Greatest pitch of stays

14 1/2"

Working pressure of plate by rules

208 lbs

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2"

Material of tube plates

Steel

Thickness: Front

1 1/2"

Back

29"

Mean pitch of stays

9"

Pitch across wide water spaces

14 1/2"

Working pressures by rules

200 lbs

Girders to Chamber tops: Material

Iron

Depth and

thickness of girder at centre

9" x 13 1/4"

Length as per rule

2' - 7"

Distance apart

8 1/2"

Number and pitch of Stays in each

Two

9"

Working pressure by rules

220 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

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

Working pressure by rules

End plates: Thickness

How stayed

Working pressure by rules

End plates: Thickness

How stayed

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

Working pressure by rules

End plates: Thickness

How stayed

Working pressure by rules

End plates: Thickness

How stayed

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

Working pressure by rules

End plates: Thickness

How stayed

Working pressure by rules

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, bilge pump valves, and a quantity of assorted bolts, nuts etc.

The foregoing is a correct description,

Charles V. Holmes
Manufacturer.

Dates
of Survey
while
building

During progress of
work in shops—

During erection on
board vessel—

Total No. of visits

1904:— Nov 1. 7. 10. 17. 24. 29. 30 Dec. 5. 9. 12. 15. 16. 20 21. 23. 1905:— Jan 4. 5. 11. 12.
Jan 16. 18. 19. 20. 25. 26. 28. 31. Feb. 2. 3. 4. 6. 9. 10.

33

Is the approved plan of main boiler forwarded herewith

also forging report for shafts

" " " " " "

General Remarks

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

The machinery of this vessel has been inspected throughout construction in accordance with the Society's Rules. The materials and workmanship are good. The boiler tested by hydraulic pressure, and with the engines placed on board, & 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. 2.05 in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD

L.M.C. 2.05

ms.
21.2.05

RS.
21.2.05

The amount of Entry Fee..

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Committee's Minute

FRI 24 FEB 1905

Assigned

+ L.M.C. 2.05

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



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Lloyd's Register
Foundation

Full

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)