

REPORT ON MACHINERY.

No.

10389

Port of Hull.

No. in Survey held at Hull.

Reg. Book.

Date, first Survey Dec 19/95 Last Survey Apr 14 1896

Received at London Office MON. MAY 4 1896

Supp 34 on the Trawler "Helson"

(Number of Visits 13)

Master

Built at

Berkeley

By whom built

Cochran & Cooper

Tons Gross 134

Net 44

When built 1896

Engines made at

Hull

By whom made

C.D. Holmes & Co.

when made 1896

Boilers made at

Hull

By whom made

do.

when made 1896

Registered Horse Power

40

Owners

J. Grant.

Port belonging to Grimsby

Nom. Horse Power as per Section 28

41 HP

ENGINES, &c.—

Description of Engines

Triple expansion Vertical

No. of Cylinders

3

Diameter of Cylinders

11 x 17 x 28

Length of Stroke

21

Revolutions per minute

112

Diameter of Screw shaft

as per rule 5.4

Diameter of Tunnel shaft

as per rule 5.1

Diameter of Crank shaft journals

5 3/4

Diameter of Crank pin

5 3/4

Size of Crank webs

as fitted 5 13/16

Diameter of screw

7' 9"

Pitch of screw

9' 6"

No. of blades

4

State whether moveable

no

Total surface

21.5 sq

No. of Feed pumps

One

Diameter of ditto

1 7/8"

Stroke

21"

Can one be overhauled while the other is at work

✓

No. of Bilge pumps

One

Diameter of ditto

2"

Stroke

21"

Can one be overhauled while the other is at work

✓

No. of Donkey Engines

One

Sizes of Pumps

2 1/2 x 5 double acting

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

In Engine Room One 2" dia.

In Holds, &c. One 2" dia.

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 2 1/2"

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

Yes

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

Now new

Is the screw shaft tunnel watertight

no tunnel

Is it fitted with a watertight door

✓

worked from

✓

BOILERS, &c.—

(Letter for record S)

Total Heating Surface of Boilers

687 sq

No. and Description of Boilers

One cyl & mult.

Working Pressure

162

Tested by hydraulic pressure to

324

Date of test

16/3/96

Can each boiler be worked separately

✓

Area of fire grate in each boiler

22.6 sq

No. and Description of safety valves to

each boiler

Two. Spring loaded

Area of each valve

3.14 sq

Pressure to which they are adjusted

167

Are they fitted

with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

7"

Mean diameter of boilers

10' 0"

Length

9' 3"

Material of shell plates

steel

Thickness

27/32

Description of riveting: circum. seams

double

long. seams

Double Strap

Diameter of rivet holes in long. seams

1 5/16

Pitch of rivets

6 1/2

Lap of plates or

width of butt straps

14 1/4

Per centages of strength of longitudinal joint

rivets

88%

plate

86%

Working pressure of shell by rules

164

Size of manhole in shell

16 x 12

Size of compensating ring

13 1/2 x 6"

No. and Description of Furnaces in each boiler

2 Holmes'

Material

steel

Outside diameter

35"

Length of plain part

top 14 1/2"

Thickness of plates

crown 1/2"

bottom 1/2"

Description of longitudinal joint

welded

No. of strengthening rings

✓

Working pressure of furnace by the rules

162

Combustion chamber plates: Material

steel

Thickness: Sides

19/32

Back

9/16

Top

9/16

Bottom

19/32

Pitch of stays to ditto: Sides

8"

Back

7 1/8"

Top

7 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

184

Material of stays

steel

Diameter at smallest part

1.32

Area supported by each stay

60 sq

Working pressure by rules

196

End plates in steam space:

Material

steel

Thickness

7/8

Pitch of stays

14 3/4"

How are stays secured

nuts

Working pressure by rules

168

Material of stays

steel

Diameter at smallest part

2.3

Area supported by each stay

216 sq

Working pressure by rules

172

Material of Front plates at bottom

steel

Thickness

3/4

Material of Lower back plate

steel

Thickness

1 1/16

Greatest pitch of stays

7 5/8"

Working pressure of plate by rules

162

Diameter of tubes

3 1/4"

Pitch of tubes

4 3/4"

Material of tube plates

steel

Thickness: Front

3/4

Back

13/16

Mean pitch of stays

9 5/8"

Pitch across wide water spaces

13 1/4"

Working pressures by rules

162

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

7 1/4 x 13 1/4"

Length as per rule

29 1/4"

Distance apart

7 3/8"

Number and pitch of Stays in each

3. 7 1/2"

Working pressure by rules

173

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

no

Superheater or Steam chest

Description of longitudinal joint

Diam. of rivet

DONKEY BOILER— Description *No donkey boiler—*
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 enter the donkey boiler _____
Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
Description of riveting long. seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
Lap of plating _____ Per centage of strength of joint _____ Rivets _____ 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 _____
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:— *2 top and bolts, 2 bottom end bolts, 2 main heating bolts, 1 set coupling bolts, 1 set feed pump valve, 1 set tilge pump valves, set of check valves, 1 safety valve spring. The vessel is provided with masts & sails as a Gulet—*

The foregoing is a correct description,
Charles D. Stammers Manufacturer.

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

The machinery of this vessel has been constructed under Special Permit and placed on board in accordance with the Society's Rules and is eligible in my opinion for the notification + L.M.C.H. 96 in the Register Book—

It is submitted that this vessel is eligible for THE RECORD.

L.M.C.H. 96

Emd. 4.5.96

4.5.96

Certificate (if required) to be sent to *And.*

The amount of Entry Fee.. £ *1:-* : When applied for, *2/5 18.96*
Special .. £ *8:0* :
Donkey Boiler Fee .. £ : : When received, *18.96*
Travelling Expenses (if any) £ *✓* : : *MACT 18/1/96*
WRITTEN

Committee's Minute *TUES. MAY 5 1896*

Assigned *+ L.M.C.H. 96*

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



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Lloyd's Register Foundation

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Signal Letter

Official N

1055

No., Date, a

Whether Briti
Foreign Bu

Britis

Number of D

Number of M

Rigged ...

Stern ...

Build ...

Galleries

Head ...

Framework a

vessel ...

Number of B

Number of w

and their c

Total to quan
at side am

No. of
Engines

One *Triple
Inver*

Number
Iron or
Pressure

Under Tonna

Closed-in spa

Space or s

Poop ...

Forecastle

Round Ho

Other clos

Break

Spaces for

G

Deductions,

R

Name

No. of Own

Name, Resi

Dated /

W B & L (439w)