

REPORT ON MACHINERY.

No. 16728

Port of Hull

Received at London Office

19

Date, first Survey Jan 11

Last Survey 13 April 1905

(Number of Visits 35)

No. in Survey held at Hull

Reg. Book.

Supp on the Steel Se K. Ulverston

Gross 240

Net 100

When built 1905

Master

Built at Selby

By whom built Messrs Cochrane Son

when made 1905

Engines made at Hull

By whom made Messrs Charles D Holmes & Co

when made 1905

Boilers made at Hull

By whom made Messrs Charles D Holmes & Co

when made 1905

Registered Horse Power

Owners Grimsby Union Steam Fishing Co. Ltd.

Port belonging to Grimsby

Is Electric Light fitted No

Nom. Horse Power as per Section 28 69670

Is Refrigerating Machinery fitted for cargo purposes No

No. of Cylinders 3

No. of Cranks 3

ENGINES, &c.—Description of Engines Tri Compound

Dia. of Cylinders 12 1/4" 2 1/2" 35" Length of Stroke 24" Revs. per minute 112

Dia. of Screw shaft

as per rule 7.04" Material of Steel

as fitted 7 1/4" 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

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 Yes

Length of stern bush 31"

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

Dia. of Tunnel shaft

as per rule 6.35"

Dia. of Crank shaft journals

as per rule 6.67"

Dia. of Crank pin 6 1/8"

Size of Crank webs 13 1/6" 4 3/8"

Dia. of thrust shaft under

collars 6 1/8"

Dia. of screw 8 1/6"

Pitch of screw 10' 6" + 11' 6"

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 Yes

No. of Bilge pumps 1

Diameter of ditto 2 1/8"

Stroke 24"

Can one be overhauled while the other is at work Yes

No. of Donkey Engines One

Sizes of Pumps 2 1/4" x 5"

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

In Holds, &c. One 2" to hold, one 2" to

In Engine Room Two 2"

slush well, Yes

Ejector suction from eng. bilge hold, with discharge on dk

Is a separate donkey suction fitted in Engine room & size Yes 2"

No. of bilge injections 1

sizes 3

Connected to condenser, or to circulating pump Yes

Are the sluices on Engine room bulkheads always accessible None

Are all the bilge suction pipes fitted with roses Yes

Are the roses in Engine room always accessible Yes

Are they Valves or Cocks both

Are all connections with the sea direct on the skin of the ship Yes

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

How are they protected wood casing

What pipes are carried through the bunkers hold suction

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

Is forced draft fitted No

BOILERS, &c.—

(Letter for record 3)

Total Heating Surface of Boilers 1135 sq

Working Pressure 180 lbs

Tested by hydraulic pressure to 360 lbs

No. and Description of Boilers One cyl. Multi

Date of test 28.3.05

Can each boiler be worked separately Yes

Area of fire grate in each boiler 33 sq

No. and Description of safety valves to

each boiler Two Spring

Area of each valve 3.9 sq

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 4 1/2"

Mean dia. of boilers 12' 6"

Length 10' 0"

Material of shell plates Steel

Thickenss 1 1/2"

Range of tensile strength 29.32

Are they welded or flanged Yes

Descrip. of riveting: cir. seams 2.0.

long. seams 0.2.8.1.8

Diameter of rivet holes in long. seams 1 1/32"

Pitch of rivets 7"

Lap of plates or width of butt straps 15"

Per centages of strength of longitudinal joint

rivets 86.5

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 bottom

Description of longitudinal joint Welded

No. of strengthening rings Holmes Patent

Working pressure of furnace by rules 198 lbs

Combustion chamber plates: Material Steel

Thickness: Sides 3 3/32"

Back 1 1/6"

Top 2 3/32"

Bottom 2 3/32"

Pitch of stays to ditto: Sides 8 1/2" x 9"

Back 8 1/2" x 9"

Top 8 1/2"

If stays are fitted with nuts or riveted heads Yes

Working pressure by rules 236 lbs

End plates in steam space:

Material of stays Steel

Diameter at smallest part 1 5/8"

Area supported by each stay 78 1/4"

Working pressure by rules 207 lbs

Material Steel

Thickness 1 1/6"

Pitch of stays 16" x 16"

How are stays secured 0.7. w. out

Working pressure by rules 208 lbs

Material of Front plates at bottom Steel

Diameter at smallest part 2.7"

Area supported by each stay 256 sq

Working pressure by rules 225 lbs

Thickness 2"

Material of Lower back plate Steel

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" + 4 5/8"

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 3/4" x 12"

Length as per rule 2' 8 3/4"

Distance apart 8"

Number and pitch of Stays in each 3' 8 1/2"

Can the superheater be shut off and the boiler worked

Working pressure by rules 180 lbs

Superheater or Steam chest; how connected to boiler

Description of longitudinal joint

Diam. of rivet

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Thickness

Diameter of flue

Material of flue plates

Thickness

End plates: Thickness

How stayed

Are they fitted with easing gear

Working pressure by rules

Working pressure of end plates

Area of safety valves to superheater

Working pressure by rules

End plates: Thickness

How stayed

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Working pressure by rules

Area of safety valves to superheater

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Working pressure by rules

End plates: Thickness

How stayed

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 _____ 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 bottom end connecting rod bolts nuts, Two main bearing bolts nuts, One set coupling bolts nuts, One set each air circulating feed bilge pump valves. A quantity of assorted bolts nuts etc.

The foregoing is a correct description,

Charles O. Holmes Manufacturer.

Dates of Survey while building { During progress of work in shops— 1905: Jan 11. 18. 20. 25. Feb 2. 6. 7. 14. 15. 16. 18. 22. 23. 27. Mar 2. 7. 9. 13. 17. 18. 22. 23.
During erection on board vessel — Mar 28, 31. Apr 1. 3. 4. 5. 6. 7. 8. 10. 12. 13.
Total No. of visits 35

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " "

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery and boilers) of this vessel have been inspected throughout — construction in accordance with the Society's Rules. The materials and workmanship are good. The boilers tested by hydraulic pressure, and with the engines placed on board, and tested under steam. They are now in good order & safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notification of *L.H.C. 4.05* in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD *L.H.C. 4.05*.

Emil
18.4.05
HL
18.4.05

The amount of Entry Fee.. £ 1 : . :
Special .. £ 10 : 10 :
Donkey Boiler Fee .. £ . : . :
Travelling Expenses (if any) £ . : . :

When applied for, 17/4/05
When received, 18.4.05

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

Committee's Minute

THUR 20 APR 1905

Assigned

L.H.C. 4.05



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Foundation

Null

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