

REPORT ON MACHINERY.

No. 16896

Port of Hull

JULS. 20 JUN 1905

Received at London Office 19

No. in Survey held at HullDate, first Survey Feb. 18th Last Survey 8th June 1905

Reg. Book.

(Number of Visits 28)535 Suff on the Steel Se K. EmeraldTons { Gross 209
Net 66

Master

Built at SelbyBy whom built Bochane SonsWhen built 1905Engines made at HullBy whom made Messrs Charles D. Holmes & Co when made 1905Boilers made at HullBy whom made Messrs Charles D. Holmes & Co when made 1905

Registered Horse Power

Owners E. CarterPort belonging to Milford HavenNom. Horse Power as per Section 28 66 67Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted No

ENGINES, &c.—Description of Engines

Triple ExpansionNo. of Cylinders 3No. of Cranks 3Dia. of Cylinders 12" - 21" - 34"Length of Stroke 24Revs. per minute 106

Dia. of Screw shaft

as per rule 7 1/2"Material of IronIs 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 6.58Length of stern bush 30 1/2"

Dia. of Turret shaft

as per rule 6 3/8"

Dia. of Crank shaft journals

as per rule 6 3/4"Dia. of Crank pin 6 3/4"Size of Crank webs 12 1/2" x 4 1/2"

Dia. of thrust shaft under

collars 6 3/4"Dia. of screw 8 1/2"Pitch of screw 11 1/2" - 10 1/2"No. of blades 4State whether moveable NoTotal surface 27 1/2No. of Feed pumps 1Diameter of ditto 2 1/2"Stroke 24"

Can one be overhauled while the other is at work

No. of Bilge pumps 1Diameter of ditto 2 1/2"Stroke 24"

Can one be overhauled while the other is at work

No. of Donkey Engines OneSizes of Pumps 2 1/4" x 5"

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

In Engine Room Two 2"In Holds, &c. One 2" to hold, and ejector

suction from engine room bilge hold, with discharge on deck

No. of bilge injections 1sizes 3Connected to condenser, or to circulating pump pumpsIs a separate donkey suction fitted in Engine room & size Yes 2"Are all the bilge suction pipes fitted with roses YesAre the roses in Engine room always accessible YesAre the sluices on Engine room bulkheads always accessible NoneAre all connections with the sea direct on the skin of the ship YesAre they Valves or Cocks bothAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YesAre the discharge pipes above or below the deep water line aboveAre they each fitted with a discharge valve always accessible on the plating of the vessel YesAre the blow off cocks fitted with a spigot and brass covering plate YesWhat pipes are carried through the bunkers hold suctionHow are they protected wood casingAre all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times YesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges YesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock before launchingIs the screw shaft tunnel watertight NoneIs it fitted with a watertight door worked from

BOILERS, &c.—

(Letter for record 8)Total Heating Surface of Boilers 1096Is forced draft fitted NoNo. and Description of Boilers One Cyl. Multi.Working Pressure 180 lbsTested by hydraulic pressure to 360 lbsDate of test 18.5.05

Can each boiler be worked separately

Area of fire grate in each boiler 35

No. and Description of safety valves to

each boiler Two SpringArea of each valve 3.98Pressure to which they are adjusted 185 lbsAre they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork 5 1/2"Mean dia. of boilers 12-6"Length 10-0"Material of shell plates SteelThickness 1 1/2"Range of tensile strength 29.32

Are they welded or flanged

Descrip. of riveting: cir. seams 1 D.long. seams D. B. S. & C.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 86.5Working pressure of shell by rules 185 lbsSize of manhole in shell 16" x 12"Size of compensating ring 7" x 1 1/2"No. and Description of Furnaces in each boiler 2 HolmesMaterial SteelOutside diameter 3'-7"Length of plain part topThickness of plates crownDescription of longitudinal joint weldedNo. of strengthening rings 4 Corr.Working pressure of furnace by the rules 198 lbsCombustion chamber plates: Material SteelThickness: Sides 23/32"Back 11/16"Top 23/32"Bottom 23/32"Pitch of stays to ditto: Sides 8"Back 9" x 8 1/2"Top 8 1/2" x 8 3/4"If stays are fitted with nuts or riveted heads NutsWorking pressure by rules 213 lbsMaterial of stays SteelDiameter at smallest part 1 5/8"Area supported by each stay 76.50Working pressure by rules 243 lbs

End plates in steam space:

Material SteelThickness 1 3/32"Pitch of stays 17 1/2" x 17 1/2"How are stays secured D. NutsWorking pressure by rules 185 lbsMaterial of stays SteelDiameter at smallest part 2 13/16"Area supported by each stay 306.25Working pressure by rules 202 lbsMaterial of Front plates at bottom SteelThickness 1 1/8"Material of Lower back plate SteelThickness 1 5/16"Greatest pitch of stays 15"Working pressure of plate by rules 180 lbsDiameter of tubes 3 1/2"Pitch of tubes 4 7/8"Material of tube plates SteelThickness: Front 7/8"Back 7/8"Mean pitch of stays 9 1/2"Pitch across wide water spaces 15"Working pressures by rules 180 lbsGirders to Chamber tops: Material Iron

Depth and

thickness of girder at centre 9" x 13 1/2"Length as per rule 2'-8"Distance apart 8 3/4"Number and pitch of Stays in each 3-8 1/2"Working pressure by rules 193 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

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Lloyd's Register

Foundation

WTS-0157

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.*

The foregoing is a correct description,

Charles D. Holmes Manufacturer.

Dates { During progress of work in shops— 1905:— Feb. 18. Mar. 1. 7. 9. 17. 18. 22. 31 Apr. 1. 3. 5. 7. 11. 12. 20 May 1. 2. 9. 10. 16. 18. 22
of Survey while building { During erection on board vessel — May 23. 27. 30 Jun. 1. 3. 8.
Total No. of visits 28

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

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

*The machinery and boiler of this vessel have 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 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 notification of *L.M.C. 6.05* in the Register Book.*

It is submitted that
this vessel is eligible for
THE RECORD L.M.C. 6.05.

Emd.
20.6.05

The amount of Entry Fee. . . £ 1 : . : . When applied for, 19/6/1905
Special £ 10 : 1 : .
Donkey Boiler Fee £ - : - : .
Travelling Expenses (if any) £ - : 8 : 2 3/1/1905

James Barclay
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
10.6.05

Committee's Minute

FRI. 23 JUN 1905

MACHINERY CERTIFICATE
WRITTEN.

Assigned

L.M.C. 6.05



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