

REPORT ON MACHINERY.

No. 16618

Port of Hull

Received at London Office 1UES. 21 FEB 1905

No. in Survey held at Hull

Date, first Survey Nov. 1/04

Last Survey Feb. 10th 1905

(Number of Visits 33)

Reg. Book.

26 Supp on the

Se. K. Nautilus

Tons } Gross 255
 } Net 98

Master Selby 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 759 7/11 Owners H. P. Aspeslagh Port belonging to Ostend

Nom. Horse Power as per Section 28 759 7/11 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 7.28" Material of screw shaft 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 Yes Length of stern bush 36"

Dia. of Funnel shaft 6.74" Dia. of Crank shaft journals 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, Excess suction from eng. bilge, hold, with discharge on deck

No. of bilge injections 1 sizes 3" Connected to condenser, or to circulating pump Yes 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 Yes Area of fire grate in each boiler 32 sq ft No. and Description of safety valves to

each boiler Two Spring Area of each valve 3.9 sq in 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 tons Are they welded or flanged Yes 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 7/8" Lap of plates or width of butt straps 17 1/2"

Per centages of strength of longitudinal joint rivets 86.5% 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 23" Thickness of plates crown 23" Description of longitudinal joint Welded No. of strengthening rings Holmes

Working pressure of furnace by the rules 252 lbs Combustion chamber plates: Material Steel Thickness: Sides 23/32" Back 1/16" Top 23/32" Bottom 23/32"

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 in Working pressure by rules 230 lbs End plates in steam space:

Material Steel Thickness 1 1/2" Pitch of stays 17" x 17" How are stays secured O. N. W. S. Working pressure by rules 207 lbs Material of stays Steel

Diameter at smallest part 2 1/16" Area supported by each stay 289 sq in Working pressure by rules 219 lbs Material of Front plates at bottom Steel

Thickness 1 5/16" Material of Lower back plate Steel Thickness 1 5/16" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 208 lbs

Diameter of tubes 3 3/4" Pitch of tubes 4 1/2" Material of tube plates Steel Thickness: Front 1 5/16" Back 29/32" 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 1 3/4" 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

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



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 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 W. Holmes Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1904:— Nov. 1. 7. 10. 17. 24. 29. 30. Dec. 5. 9. 12. 15. 16. 20. 21. 23. 1905:— Jan. 4. 5. 11. 12.
 { During erection on board vessel - - } Jan. 16. 18. 19. 20. 25. 26. 28. 31. Feb. 2. 3. 4. 6. 9. 10.
 Total No. of visits 33

Is the approved plan of main boiler forwarded herewith *Yes*
 also forging report for shafts *Yes*
 " " " " " " " " " " " "

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*

J.M.S.
 21.2.05
R.S.
 21.2.05

Certificate (if required) to be sent to Hull

The amount of Entry Fee.. £ 1 : : : : When applied for,
 Special £ 10 : 13 : : : : 20/2/1905.
 Donkey Boiler Fee £ . : : : : When received,
 Travelling Expenses (if any) £ . : 8 2 : : : : 28/2/1905

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

Committee's Minute _____
 Assigned _____ + *L.M.C. 2.05*

