

REPORT ON MACHINERY.

No. 18780

THUR. FEB 28 1907

Port of Hull

Received at London Office 19

No. in Survey held at Stainforth Date, first Survey 4 Last Survey 25th Feb 1907
 Reg. Book. on the Steel tug Newark (Number of Visits)
 Master Built at Gainsborough By whom built J. S. Watson Tons { Gross
 Engines made at Stockton By whom made A. Barker when made 1903 Net
 Boilers made at Newark By whom made A. Farrar when made 1903
 Registered Horse Power Owners J. S. Watson Port belonging to
 Nom. Horse Power as per Section 28 Is Refrigerating Machinery fitted No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound Surface Condensing No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 8' x 16' Length of Stroke 12' Revs. per minute Dia. of Screw shaft as per rule 3 3/4" Material of screw shaft Iron
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No 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 2 separate liners 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 No Length of stern bush 13 3/4" brass
 Dia. of Tunnell shaft as per rule 2.99 Dia. of Crank shaft journals as per rule 3.14 Dia. of Crank pin 3 1/2" Size of Crank webs 4 1/2" x 2 1/2" Dia. of thrust shaft under
 collars 3 3/4" Dia. of screw 5 1/2" Pitch of screw — No. of blades 3 State whether moveable No Total surface —
 No. of Feed pumps 1 Diameter of ditto 1 1/2" Stroke 6 Can one be overhauled while the other is at work
 No. of Bilge pumps 1 Diameter of ditto 1 1/2" Stroke 6 Can one be overhauled while the other is at work
 No. of Donkey Engines 1 Duplex Sizes of Pumps 2 1/2" x 4 1/2" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Two 1 1/2" In Holds, &c. None

No. of bilge injections None sizes — Connected to condenser, or to circulating pump — Is a separate donkey suction fitted in Engine room & size No
 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 valve 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 None How are they protected —
 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 No
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock 25.2.06 Is the screw shaft tunnel watertight None
 Is it fitted with a watertight door ✓ worked from —

BOILERS, &c.— (Letter for record 5) Total Heating Surface of Boilers — Is forced draft fitted No
 No. and Description of Boilers 1 Return tube marine type Working Pressure 120 lb Tested by hydraulic pressure to 240 lb
 Date of test 28.1.03 Can each boiler be worked separately — Area of fire grate in each boiler 15 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 not yet up Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 5' Mean dia. of boilers — Length — Material of shell plates —
 Thickness — Range of tensile strength — Are they welded or flanged Particulars of boiler attached Descrip. of riveting: cir. seams — long. seams —
 Diameter of rivet holes in long. seams — Pitch of rivets — Lap of plates or width of butt straps —
 Per centages of strength of longitudinal joint — Working pressure of shell by rules — Size of manhole in shell —
 Size of compensating ring — No. and Description of Furnaces in each boiler — Material — Outside diameter —
 Length of plain part — Thickness of plates — Description of longitudinal joint — No. of strengthening rings —
 Working pressure of furnace by the rules — Combustion chamber plates: Material — Thickness: Sides — Back — Top — Bottom —
 Pitch of stays to ditto: Sides — Back — Top — If stays are fitted with nuts or riveted heads — Working pressure by rules —
 Material of stays — Diameter at smallest part — Area supported by each stay — Working pressure by rules — End plates in steam space: —
 Material — Thickness — Pitch of stays — How are stays secured — Working pressure by rules — Material of stays —
 Diameter at smallest part — Area supported by each stay — Working pressure by rules — Material of Front plates at bottom —
 Thickness — Material of Lower back plate — Thickness — Greatest pitch of stays — Working pressure of plate by rules —
 Diameter of tubes — Pitch of tubes — Material of tube plates — Thickness: Front — Back — Mean pitch of stays —
 Pitch across wide water spaces — Working pressures by rules — Girders to Chamber tops: Material — Depth and
 thickness of girder at centre — Length as per rule — Distance apart — Number and pitch of Stays in each —
 Working pressure by rules — 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 —

HVL 426-0008(1/2)

02781

STRA

FLAT PLATE (If Bar Keel, at GABBOARD OF State actual thickness in way of Double Bottom.

Write Bar Keel opposite to corresponding item.

DOUBLING OF Length of I of S of thickness of S of

POOP SIDES RAISED QUAR BRIDGE SIDES FORECASTLE LENGTHS OF Manufacture manufacture Plates, outside

Has the Steel

FRAMES ex REVERSED altina

LOWER MAST Bowsprit Topmasts, Rigging, M Sails.

Equipmer Number of Certificate. 50556

Number of Certificate. 3450

Iron Steam Ch or Steel Wire.

Boats Pumps, N Windlass Engine R What arre Coal Bu Number o Ceiling i Cargo H State size Number o Bulwark The above Builder's

Rpt. 1A

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 boiler

enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of 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 Descrip. 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:—None.

The foregoing is a correct description,
Manufacturer.

Dates { During progress of work in shops - - }
of Survey { During erection on board vessel - - }
while building { Total No. of visits

Is the approved plan of main boiler forwarded herewith No

General Remarks (State quality of workmanship, opinions as to class, &c. Examined cylinders, pistons, slide valves, cranks, thrust, & screw shafts, condenser, all pumps, valves, sea cocks, and valves, donkey pumps & valves, bilge suction and roses, propeller, stern bush, & fastening of the sea connections and found in order.

Examined Main boiler internally and externally and found the shell, end plates, furnace, combustion chamber, tube stays, and mountings in order.

The above survey was made at the request of Messrs Gunster Liverpool, see their letter of the 28th Jan'y, forwarded to London on the 1st Feb'y 1904.

I would draw attention to the boiler, which simply rests on its seatings, and is not stayed to vessels side.

Also to the bilge valves on distributing box, being fixed on spindles, thereby making communication between the sea and bilges possible.

The engine room bilge suction is only 1 1/2" in dia.

There is no bilge injection valve.

There is no direct donkey suction to the bilge.

There is no spare gear.

The screw shaft is a two liner one, & diameters as sketch. This shaft would appear to be equal by the Rules to a pressure

The amount of Entry Fee, £ : : When applied for,
Special £ : : : : : 19
Donkey Boiler Fee . . . £ : : : : :
Travelling Expenses (if any) £ : : : : :
When received, : : : : : 19

Committee's Minute
Assigned

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

Rpt. 9a.

Port of Hull Continuation of Report No. 18780 dated Feb'y 04 on the

Aug. Newark

pressure of 95 lbs per sq. inch.

The foregoing is respectfully submitted for the information of the Committee.

James Barclay