

REPORT ON MACHINERY.

No. 20,378

Received at London Office

SAI 8 AUG 1908

Date of writing Report

4.8.1908 When handed in at Local Office

4.8.1908 Port of Hull

To. in Survey held at Hull.

Date, First Survey Mar 28th Last Survey July 30th 1908

Reg. Book.

(Number of Visits 37)

801 on the 1/4 ton PREMIER

Master Built at Selby. By whom built Cochrane & Sons

Tons { Gross 253
Net 98.
When built 1908.

Engines made at Hull By whom made Chas. S. Holmes & Co. when made 1908

Boilers made at Hull By whom made 1908 when made 1908

Registered Horse Power Owners The Anchor Steam Towing Co. Port belonging to Gentry

Nom. Horse Power as per Section 28 69. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Two 1000 lbs. capacity No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12 1/2 - 22 - 35 Length of Stroke 24 Revs. per minute 112 Dia. of Screw shaft as per rule 7 1/8 Material of screw shaft as fitted 7 1/4 Steel

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 Yes 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 If two

liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 31

Dia. of Tunnel shaft as per rule 6 1/4 Dia. of Crank shaft journals as per rule 6 1/2 Dia. of Crank pin 6 3/4 Size of Crank webs 12 x 10 1/2 Dia. of thrust shaft under

collars 7 1/2 Dia. of screw 8 1/2 Pitch of Screw 11 1/2 (mean) No. of Blades 4 State whether moveable No. Total surface 28 1/2

No. of Feed pumps 1 Diameter of ditto 2 1/2 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 1 Diameter of ditto 2 1/2 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 1 Sizes of Pumps 2 1/2 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 - 2 (Fore & Aft) In Holds, &c. 2 - 2 (Fore head & stern well)

2" Extern suction to all holds with an engine on deck

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" Extern

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 1" Hot Suction How are they protected Wire 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

Dates of examination of completion of fitting of Sea Connections 30.5.08 of Stern Tube 30.5.08 Screw shaft and Propeller 30.5.08

Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Wm. Beaman & Co.

Total Heating Surface of Boilers 1120. Is Forced Draft fitted No. No. and Description of Boilers 1 SE. Muchburner

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 17.7.08. No. of Certificate 1656.

Can each boiler be worked separately Yes Area of fire grate in each boiler 33.2. No. and Description of Safety Valves to

each boiler 2 Spring loaded. Area of each valve 3.97 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 7 1/2 Mean dia. of boilers 13 1/2 Length 10 1/2 Material of shell plates Steel

Thickness 1 1/2 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams SR Lap.

long. seams 2 BS 138 Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 7 1/2 Lap of plates or width of butt straps 17 1/2

Per centages of strength of longitudinal joint rivets 85.2 Working pressure of shell by rules 188. 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 2 Holmes. Material Steel. Outside diameter 43

Length of plain part top 7 1/2 bottom 7 1/2 Thickness of plates crown 4 1/2 Description of longitudinal joint welded. No. of strengthening rings

Working pressure of furnace by the rules 198 Combustion chamber plates: Material Steel. Thickness: Sides 2 1/2 Back 4 1/2 Top 2 1/2 Bottom 2 1/2

Pitch of stays to ditto: Sides 9 x 9 Back 9 1/2 x 8 1/2 Top 8 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 220

Material of stays Steel. Diameter at smallest part 1 1/2 Area supported by each stay 8 1/2 Working pressure by rules 220 End plates in steam space:

Material Steel. Thickness 1 1/2 Pitch of stays 17 1/2 x 17 1/2 How are stays secured Bolted Working pressure by rules 185 Material of stays Steel

Diameter at smallest part 3 Area supported by each stay 306.25 Working pressure by rules 215 Material of Front plates at bottom Steel

Thickness 3/32 Material of Lower back plate Steel. Thickness 15/16 Greatest pitch of stays 14 1/2 x 8 1/2 Working pressure of plate by rules 212

Diameter of tubes 3 1/4 Pitch of tubes 12 x 5 Material of tube plates Steel. Thickness: Front 2 1/2 Back 3 Mean pitch of stays 9 1/2

Pitch across wide water spaces 15 Working pressures by rules 279 Girders to Chamber tops: Material Steel. Depth and

thickness of girder at centre 9 x 1 1/2 Length as per rule 32 1/2 Distance apart 8 1/2 Number and pitch of stays in each 308 1/2

Working pressure by rules 239 Superheater or Steam chest; how connected to boiler None 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
648-0009

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
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 Plates
Working pressure of shell by rules	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	
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by			
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— *Two top & two bottom end connecting rod bolts, two main bearing bolts, one set of coupling bolts & nuts, one set of air & circulating pump valves, one set of feed & high pump valves, one main & one donkey feed check valve, assorted bolts & nuts etc.*

The foregoing is a correct description,

PER PRO CHARLES D. HOLMES & Co.

Manufacturer.

H. Allon

Dates of Survey while building: During progress of work in shops— 1908: Mar 28, 30, Apr 6, 8, 10, 13, 16, 24, 28, May 1, 2, 6, 9, 11, 12, 16, 19, 21, 23, 26, 30, Jun 3, 6, 19, 27, 29. During erection on board vessel— July 2, 4, 7, 11, 13, 17, 22, 23, 25, 27, 30. Total No. of visits 37.

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

Dates of Examination of principal parts—Cylinders 30.5.08. Slides 7.7.08. Covers 27.6.08. Pistons 27.6.08. Rods 30.5.08. Connecting rods 30.5.08. Crank shaft 14.5.08. Thrust shaft 14.5.08. Tunnel shafts ✓ Screw shaft 26.5.08. Propeller 26.5.08. Stern tube 26.5.08. Steam pipes tested 23.7.08. Engine and boiler seatings 30.5.08. Engines holding down bolts 22.7.08. Completion of pumping arrangements 30.7.08. Boilers fixed 22.7.08. Engines tried under steam 25.7.08. Main boiler safety valves adjusted 25.7.08. Thickness of adjusting washers *F 3/4 A 3*. Material of Crank shaft *Steel*. Identification Mark on Do. *426 J.W.G 2.7.08*. Material of Thrust shaft *Steel*. Identification Mark on Do. *426 J.W.G 2.7.08*. Material of Tunnel shafts ✓ Identification Marks on Do. *426 J.W.G 2.7.08*. Material of Screw shafts *Steel*. Identification Marks on Do. *426 J.W.G 2.7.08*. Material of Steam Pipes *Solid drawn copper*. Test pressure *360 lbs*.

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery & boiler of this vessel have been continuously under Special Survey, are of good material & workmanship & have been fitted & secured on board in accordance with the Rules. They are now in good working condition & I give in my opinion to have record of T.L.M.C. 7-08 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 7.08.

The amount of Entry Fee .. £ 1 : 0 : 0 When applied for, Special .. £ 10 : 7 : 9 1908 Donkey Boiler Fee .. £ : : : When received, Travelling Expenses (if any) £ : 8 : 23 : 8 1908

Committee's Minute

Assigned

10.8.08

thmc 7.08

MACHINERY CERTIFICATE WRITTEN.



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