

REPORT ON MACHINERY.

No. 19383

Port of Hull

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No. in Survey held at Hull
Reg. Book. on the S. / *Hawes* TOKIODate, first Survey Mar. 22 Last Survey Aug. 30 1907
(Number of Visits 25)Master *Peter Schumann* Built at *Selby* By whom built *Bochman & Sons* Tons { Gross 295
Net 114.Engines made at *Hull* By whom made *Ames & Smith* When built 1907-8Boilers made at *Hull* By whom made *Hull* when made *Hull*Registered Horse Power Owners *Pickering & Haldane, M. Trading Port* belonging to *Hull*Nom. Horse Power as per Section 28 87.5 Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *No*

ENGINES, &c.—Description of Engines

Triple

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders *13" x 22 1/2" x 37"* Length of Stroke *24"* Revs. per minute *115* Dia. of Screw shaft as per rule *7 1/2"* Material of *Iron*
as fitted *8"* screw shaftIs 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 tightin 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *Yes* If twoliners are fitted, is the shaft lapped or protected between the liners *Yes* Length of stern bush *3' 0"*Dia. of Tunnel shaft as per rule *6 3/4"* Dia. of Crank shaft journals as per rule *7 1/2"* Dia. of Crank pin *7 1/2"* Size of Crank webs *14 1/2" x 4 1/2"* Dia. of thrust shaft undercollars *7 1/2"* Dia. of screw *9 1/4"* Pitch of Screw *10' 9"* No. of Blades *4* State whether moveable *No* Total surface *29 1/2*No. of Feed pumps *2* Diameter of ditto *2 3/4"* Stroke *12"* Can one be overhauled while the other is at work *Yes*No. of Bilge pumps *2* Diameter of ditto *2 3/4"* Stroke *12"* Can one be overhauled while the other is at work *Yes*No. of Donkey Engines *1* Sizes of Pumps *6" x 3" x 6"* No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room *2-2" (F.A. & A.F.T.)* In Holds, &c. *3-2" (Fore hold, main hold, & hold well)**2" suction from air pipe & discharge on deck.*No. of Bilge Injections *1* sizes *3"* Connected to condenser, or to circulating pump *London* Is a separate Donkey Suction fitted in Engine room & size *2" 1/2"*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 *Hot air 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*Dates of examination of completion of fitting of Sea Connections *29.5.07* of Stern Tube *29.5.07* Screw shaft and Propeller *29.5.07*Is the Screw Shaft Tunnel watertight *None* Is it fitted with a watertight door *Yes* worked from *Yes*BOILERS, &c.—(Letter for record *E.*)Manufacturers of Steel *Steel Co. of Scotland & Messrs. James Buchanan*Total Heating Surface of Boilers *1488 1/2* Is Forced Draft fitted *No* No. and Description of Boilers *1, S.E. Multitubular*Working Pressure *200 lbs.* Tested by hydraulic pressure to *400* Date of test *26.7.07* No. of Certificate *1577*Can each boiler be worked separately *Yes* Area of fire grate in each boiler *46.25* No. and Description of Safety Valves toeach boiler *2, Spring Loaded* Area of each valve *9 1/2"* 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 *7"* Mean dia. of boilers *17' 3"* Length *10' 6"* Material of shell plates *Steel*Thickness *1 3/8"* Range of tensile strength *28-32* Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *S.A. Lap*long. seams *S.B.S. Lap* Diameter of rivet holes in long. seams *1 3/8"* Pitch of rivets *8"* Lap of plates or width of butt straps *17 1/2"*Per centages of strength of longitudinal joint rivets *85.5* Working pressure of shell by rules *200* Size of manhole in shell *16" x 12"*Size of compensating ring *40 x 30 x 1 3/8"* No. and Description of Furnaces in each boiler *3 plain* Material *Steel* Outside diameter *3' 2 1/2"*Length of plain part top *5' 7"* Thickness of plates crown *1 1/2"* Description of longitudinal joint *Welded* No. of strengthening rings *Yes*bottom *5' 1/2"* Working pressure of furnace by the rules *211* Combustion chamber plates: Material *Steel* Thickness: Sides *1 1/2"* Back *1 1/2"* Top *5"* Bottom *1 1/2"*Pitch of stays to ditto: Sides *9 1/2" x 8 1/2"* Back *9 1/2" x 8 1/2"* Top *8 1/2" x 7 1/2"* If stays are fitted with nuts or riveted heads *Yes* Working pressure by rules *211*Material of stays *Steel* Diameter at smallest part *1 1/2"* Area supported by each stay *63.75* Working pressure by rules *220* End plates in steam space:Material *Steel* Thickness *1 1/8"* Pitch of stays *17' x 15 1/2"* How are stays secured *Welded* Working pressure by rules *202* Material of stays *Steel*Diameter at smallest part *6 1/8"* Area supported by each stay *263.5* Working pressure by rules *231* Material of Front plates at bottom *Steel*Thickness *1 1/2"* Material of Lower back plate *Steel* Thickness *1 1/2"* Greatest pitch of stays *15"* Working pressure of plate by rules *200*Diameter of tubes *3 1/2"* Pitch of tubes *4 3/4" x 4 3/4"* Material of tube plates *Steel* Thickness: Front *3/8"* Back *7/8"* Mean pitch of stays *9 1/2" x 9 1/2"*Pitch across wide water spaces *14"* Working pressures by rules *208* Girders to Chamber tops: Material *Iron* Depth andthickness of girder at centre *9 1/2" x 2"* Length as per rule *2' 10"* Distance apart *8 1/2"* Number and pitch of stays in each *30 7 1/2"*Working pressure by rules *209* Superheater or Steam chest; how connected to boiler *None* Can the superheater be shut off and the boiler workedseparately *Yes* Diameter *Yes* Length *Yes* Thickness of shell plates *Yes* Material *Yes* Description of longitudinal joint *Yes* Diam. of rivetholes *Yes* Pitch of rivets *Yes* Working pressure of shell by rules *Yes* Diameter of flue *Yes* Material of flue plates *Yes* Thickness *Yes*If stiffened with rings *Yes* Distance between rings *Yes* Working pressure by rules *Yes* End plates: Thickness *Yes* How stayed *Yes*Working pressure of end plates *Yes* Area of safety valves to superheater *Yes* Are they fitted with easing gear *Yes*

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 rods & nuts*
Two main bearing bolts, one set of coupling bolts & nuts, one set of feed
valve pump valves. Main & donkey feed check valves. Assorted bolts & nuts.

The foregoing is a correct description,

Manufacturer.

FOR AMOS & SMITH

Dates of Survey while building	During progress of work in shops - -	<i>Mar. 22, Apr. 5, May 3, 15, 17, 22, 24, 27, 28, 29, 30</i>	MANAGING PARTNER.	<i>W. S. S. R. June 5, 22.</i>
	During erection on board vessel - -	<i>July 1, 10, 20, 24, 26, Aug. 13, 21,</i>		
	Total No. of visits	<i>Aug. 21, 24, 28, 30.</i>		

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

Dates of Examination of principal parts—Cylinders	<i>12.8.07</i>	Slides	<i>26.7.07</i>	Covers	<i>30.7.07</i>	Pistons	<i>20.7.07</i>	Rods	<i>22.7.07</i>
Connecting rods	<i>5.4.07</i>	Crank shaft	<i>24.8.07</i>	Thrust shaft	<i>24.8.07</i>	Tunnel shafts	<i>✓</i>	Screw shaft	<i>27.8.07</i>
Propeller	<i>27.8.07</i>	Stern tube	<i>15.5.07</i>	Steam pipes tested	<i>20.8.07</i>	Engine and boiler seatings	<i>29.8.07</i>	Engines holding down bolts	<i>21.8.07</i>
Completion of pumping arrangements	<i>24.8.07</i>	Boilers fixed	<i>14.8.07</i>	Engines tried under steam	<i>24.8.07</i>				
Main boiler safety valves adjusted	<i>24.8.07</i>	Thickness of adjusting washers	<i>P 5/16 S 7/16</i>						
Material of Crank shaft	<i>Steel</i>	Identification Mark on Do.	<i>365 24.8.07 5.11.6</i>	Material of Thrust shaft	<i>Steel</i>	Identification Mark on Do.	<i>365 24.8.07 5.11.6</i>		
Material of Tunnel shafts	<i>✓</i>	Identification Marks on Do.	<i>✓</i>	Material of Screw shafts	<i>Steel</i>	Identification Marks on Do.	<i>365 24.8.07 5.11.6</i>		
Material of Steam Pipes	<i>Sold & drawn copper</i>	Test pressure	<i>40 lb.</i>						

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

The engine & boiler of this vessel have been constructed under special
Survey, are of good material & workmanship, have been fitted & received
in board in accordance with the Rules. They are now in good working
condition, and eligible in my opinion to have the notation of
“L.M.C. 8.07” in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD

+ LMC 807

The amount of Entry Fee..	£	<i>7.00</i>	When applied for,	<i>11/9 1907</i>
Special	£	<i>10.2.0</i>	When received,	<i>1.10.08</i>
Donkey Boiler Fee	£	<i>11.8</i>		
Travelling Expenses (if any) £		<i>11.8</i>		

Committee's Minute

FRI. 13 SEP 1907

Assigned

+ LMC 8.07

John. L. Gwynne
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.