

## REPORT ON MACHINERY.

No. 19565

Port of Hull

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No. in Survey held at Hull Date, first Survey June 6<sup>th</sup> Last Survey Oct. 30<sup>th</sup> 1907.  
 Reg. Book. 37<sup>th</sup> Suff on the 1<sup>st</sup> Trawler Semiramis (Number of Visits 30)  
 Master Built at Beccrey By whom built Cook, Wilm. & Pinner Tons { Gross 24.6  
 Engines made at Hull By whom made Chas. S. Holmes & Co. Net 12.6  
 Boilers made at Hull By whom made S when made 1907-10  
 Registered Horse Power Owners Roberts & Ruthven Ltd Port belonging to Grimsby  
 Nom. Horse Power as per Section 28 68. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 12<sup>1</sup>/<sub>2</sub> - 22 - 35 Length of Stroke 24 Revs. per minute 112 Dia. of Screw shaft as per rule 7.125 as fitted 7.5 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 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 36  
 Dia. of Tunnel shaft as per rule 6.386 as fitted 6.75 Dia. of Crank shaft journals as per rule 6.75 as fitted 7.1 Dia. of Crank pin 7 Size of Crank webs 13x17 Dia. of thrust shaft under collars 7 Dia. of screw 8-7<sup>1</sup>/<sub>2</sub> Pitch of Screw 11-0 No. of Blades 4 State whether moveable No Total surface 28 ft<sup>2</sup>  
 No. of Feed pumps 1 Diameter of ditto 28 Stroke 24 Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 1 Diameter of ditto 28 Stroke 24 Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 1 Sizes of Pumps 22<sup>1</sup>/<sub>2</sub> x 5 No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room 2-2 (Fwd. aft) In Holds, &c. 4-2 (Forepeak Fwd. hold, main hold, after hold, mid) 2<sup>1</sup>/<sub>2</sub> Glycer suction from engine room 2<sup>1</sup>/<sub>2</sub> Separation system from engine  
 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<sup>1</sup>/<sub>2</sub> Glycer  
 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 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 27.9.07 of Stern Tube 27.9.07 Screw shaft and Propeller 27.9.07  
 Is the Screw Shaft Tunnel watertight No Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Shewan, Rowan, Glasgow.  
 Total Heating Surface of Boilers 1046 ft<sup>2</sup> Is Forced Draft fitted No No. and Description of Boilers 1 S.E. Multitubular  
 Working Pressure 180 lbs. Tested by hydraulic pressure to 360. Date of test 2.10.07 No. of Certificate 1599.  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 33 ft<sup>2</sup> No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 3.9 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 8" Mean dia. of boilers 12-6 Length 10-0 Material of shell plates Steel  
 Thickness 1/2 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams S.R. Lap long. seams S.B.S. rivets 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 86.5 plate 85.2 Working pressure of shell by rules 180. Size of manhole in shell 17 x 13  
 Size of compensating ring 7 1/2 x 1 1/2 No. and Description of Furnaces in each boiler 2 Plain Material Steel Outside diameter 3-7  
 Length of plain part top 5-10 bottom 5-3 1/2 Thickness of plates crown 1 1/4 bottom 1 1/4 Description of longitudinal joint welded No. of strengthening rings 1  
 Working pressure of furnace by the rules 184 Combustion chamber plates: Material Steel Thickness: Sides 3/32 Back 1/16 Top 3/32 Bottom 3/32  
 Pitch of stays to ditto: Sides 9x9 Back 9x8 1/2 Top 8 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 208  
 Material of stays Steel Diameter at smallest part 1 1/8 Area supported by each stay 81 in<sup>2</sup> Working pressure by rules 230. End plates in steam space: Material Steel Thickness 1/2 Pitch of stays 1 1/2 x 1 1/2 How are stays secured 291 heads Working pressure by rules 185 Material of stays Steel  
 Diameter at smallest part 2 1/8 Area supported by each stay 306 in<sup>2</sup> Working pressure by rules 202 Material of Front plates at bottom Steel  
 Thickness 3/8 Material of Lower back plate Steel Thickness 5/8 Greatest pitch of stays 15 x 9 Working pressure of plate by rules 192  
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 3/8 Back 3/8 Mean pitch of stays 9 3/8  
 Pitch across wide water spaces 1 1/2 Working pressures by rules 180 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 x 1 1/2 Length as per rule 2-8 Distance apart 8 1/2 Number and pitch of stays in each 208 1/2  
 Working pressure by rules 213 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



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 connecting rods & nuts, two main bearing trees, one set of coupling rods & nuts, one set of feed & high pump valves, one main & one feed chest valve, and other 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 - 1907 June 6, 14, 28, July 9, 12, 26, 30, Aug 9, 17, 20, 23, 24, Sep 5, 9, 13, 14, 16, 17, 21, 25, 27, 28, Oct 1, 2, 9, 10, 12.  
 { During erection on board vessel - Oct 14, 19, 30.  
 Total No. of visits 30

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

Dates of Examination of principal parts—Cylinders *20.9.07* Slides *25.9.07* Covers *13.9.07* Pistons *25.9.07* Rods *20.9.07*  
 Connecting rods *20.9.07* Crank shaft *25.9.07* Thrust shaft *25.9.07* Tunnel shafts *✓* Screw shaft *20.8.07* Propeller *17.8.07*  
 Stern tube *17.8.07* Steam pipes tested *9.10.07* Engine and boiler seatings *27.9.07* Engines holding down bolts *9.10.07*  
 Completion of pumping arrangements *12.10.07* Boilers fixed *9.10.07* Engines tried under steam *12.10.07*  
 Main boiler safety valves adjusted *12.10.07* Thickness of adjusting washers *F<sub>5</sub> A<sub>5</sub>*  
 Material of Crank shaft *Iron* Identification Mark on Do. *364 7.46 25.9.07* Material of Thrust shaft *Iron* Identification Mark on Do. *364 7.46 20.8.07*  
 Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do. *364 7.46 20.8.07*  
 Material of Steam Pipes *Solid drawn copper* Test pressure *360 lbs.*

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

*The machinery & trim of this vessel have been constructed under Special Survey, are of good material & workmanship & have been fitted & secured in accordance with the Rules. They are now in good working condition, & eligible in my opinion to have the notation -1- L. M. C. 10.07. in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD

+ LMC 1007

*J. M.*

*7.11.07*

The amount of Entry Fee. £ *7* : : : When applied for, *6/11/1907*  
 Special .. £ *10* : : :  
 Donkey Boiler Fee .. £ : : : When received, *29/11/07*  
 Travelling Expenses (if any) £ *2* : : : *30/11/07*

Committee's Minute

FRI. 8 NOV 1907

Assigned

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



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MACHINE WRITTEN

Null

Certificates (if required) to be sent to

(The Surveyors are requested not to write on or below the space for Committee's Minute.)