

# REPORT ON MACHINERY

No. 34810

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Port of Glasgow  
 Date, First Survey 16/1/15 Last Survey 6/2/15 19  
 (Number of Visits 9)  
 in Survey held at Glasgow  
 on the S.S. PARLANDS ex Marie Glaeser  
 Master Spence-14 Built at Rostock By whom built apt. Ges. Heptan  
 Engines made at Rostock By whom made akt. Ges. Heptan when made 1908  
 Milers made at ? By whom made ? when made 1908  
 Registered Horse Power 132 Owners J.W. Baird & Co Port belonging to W. Hartlepool  
 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

**GINES, & Co. — Description of Engines**  
 Type Triple expansion No. of Cylinders 3 No. of Cranks 3  
 a. of Cylinders 16 3/8, 25 7/8, 41 1/4 Length of Stroke 3 1/2 Revs. per minute 100 Dia. of Screw shaft 9.66 as per rule 9.53 Material of screw shaft Steel  
 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  
 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 39  
 Dia. of Tunnel shaft 8 7/16 as per rule 8.0 Dia. of Crank shaft journals 8 7/16 as per rule 8.4 Dia. of Crank pin 8 7/16 Size of Crank webs 5 1/2 x 5 1/2 Dia. of thrust shaft under  
 pins 8 7/16 Dia. of screw 12.5 Pitch of Screw 11-2 No. of Blades 4 State whether moveable no Total surface 170 1/2  
 of Feed pumps 2 Diameter of ditto 2.2 Stroke 17.7 Can one be overhauled while the other is at work Yes Thrust shaft 3/16 solid  
 of Bilge pumps 2 Diameter of ditto 2.2 Stroke 17.7 Can one be overhauled while the other is at work Yes = 170 1/2 W.P.  
 of Donkey Engines 2 Sizes of Pumps 7.4 x 8.6 x 9 x 4 x 2.6 x 4 No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room 3-2 1/2 Bilge suction Sea 2, Tunnel 1 1/2 In Holds, &c. 1 each side in each hold 2 1/2  
 of Bilge Injections 1 sizes 3 7/8 Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes-2 1/2  
 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  
 all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Valves & cocks  
 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  
 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  
 at pipes are carried through the bunkers none How are they protected  
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
 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 12/15 of Stern Tube 1/2/15 Screw shaft and Propeller 1/2/15  
 the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

**BOILERS, & Co. — (Letter for record)** Manufacturers of Steel  
 Total Heating Surface of Boilers 2378 1/2 Is Forced Draft fitted no No. and Description of Boilers 2 Single ended  
 Working Pressure 185 1/2 Tested by hydraulic pressure to 200 Date of test 6/5/15 No. of Certificate 1  
 each boiler be worked separately Yes Area of fire grate in each boiler 65 1/2 No. and Description of Safety Valves to  
 boiler 2 Direct Spring Area of each valve 4.9 1/2 Pressure to which they are adjusted 190 1/2 Are they fitted with easing gear Yes  
 Closest distance between boilers or uptakes and bunkers or woodwork 10 Mean dia. of boilers 11-3 3/8 Length 9-6 1/2 Material of shell plates Steel  
 Thickness 1 1/2 Range of tensile strength 40,000 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams lap 20  
 seams the shops Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 1 1/4 Lap of plates or width of butt straps outside 13  
 Percentages of strength of longitudinal joint 90.8 Working pressure of shell by rules 200 Size of manhole in shell 16 x 12  
 of compensating ring 28 x 32 x 1 1/2 No. and Description of Furnaces in each boiler 2 Morrison Material Steel Outside diameter 3-5 3/8  
 Length of plain part top 1 Thickness of plates bottom 5 1/2 Description of longitudinal joint weld No. of strengthening rings 1  
 Working pressure of furnace by the rules 231 Combustion chamber plates: Material Steel Thickness: Sides 3/32 Back 5/8 Top 1/32 Bottom 1/16  
 Pitch of stays to ditto: Sides 7 1/8 x 8 Back 7 1/2 x 7 1/2 Top 7 1/8 x 7 1/8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 234 1/2  
 Material of stays Steel Diameter at smallest part 1.48 Area supported by each stay 630 Working pressure by rules 188 1/2 End plates in steam space:  
 Material Steel Thickness 1 1/8 Pitch of stays 4 1/2 x 17 How are stays secured the nuts Working pressure by rules 202 1/2 Material of stays Steel  
 Diameter at smallest part 5 1/2 Area supported by each stay 246 1/2 Working pressure by rules 218 1/2 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 14 1/4 x 7 1/2 Working pressure of plate by rules 301 1/2  
 Diameter of tubes 3 1/4 Pitch of tubes 4.3 x 4.3 Material of tube plates Steel Thickness: Front 1 1/2 Back 7/8 Mean pitch of stays 8.6  
 Pitch across wide water spaces 14 1/16 Working pressures by rules 366 1/2 Girders to Chamber tops: Material Steel Depth and  
 Thickness of girder at centre 7 1/2 x 1 1/2 Length as per rule 24.31 Distance apart 7 1/8 Number and pitch of stays in each 2-7 3/4  
 Working pressure by rules 246 1/2 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked  
 separately Yes Diameter 14 Length 14 Thickness of shell plates 1 1/2 Material Steel Description of longitudinal joint lap 20 Diam. of rivet  
 Pitch of rivets 1 1/2 Working pressure of shell by rules 200 Diameter of flue 14 Material of flue plates Steel Thickness 1 1/2  
 stiffened with rings Yes Distance between rings 14 Working pressure by rules 200 End plates: Thickness 1 1/2 How stayed lapped  
 Working pressure of end plates 200 Area of safety valves to superheater 14 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 S \_\_\_\_\_

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 \_\_\_\_\_ Rivets \_\_\_\_\_ Plates \_\_\_\_\_

Dia. of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_

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 \_\_\_\_\_ Radius of do. \_\_\_\_\_ Stayed by \_\_\_\_\_

Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_ Dates of survey \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:— *Two each top & bottom end & main bearing one set coupling bolts all with nuts, a set of feed & bilge pump spare valves for donkey pumps, pistons rings for each main cylinder bolts & nuts & iron of various sizes, propeller screw shaft, etc.*

The foregoing is a correct description,

Manufacturer. \_\_\_\_\_

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

Is the approved plan of main boiler forwarded herewith \_\_\_\_\_

Dates of Examination of principal parts—Cylinders *1/2/15* Slides *27/1/15* Covers *27/1/15* Pistons *27/1/15* Rods *27/1/15*

Connecting rods *27/1/15* Crank shaft *27/1/15* Thrust shaft *27/1/15* Tunnel shafts *27/1/15* Screw shaft *1/2/15* Propeller *1/2/15*

Stern tube *1/2/15* Steam pipes tested *27/28/15* Engine and boiler seatings *27/1/15* Engines holding down bolts *27/1/15*

Completion of pumping arrangements *6/2/15* Boilers fixed *27/1/15* Engines tried under steam *6/2/15*

Main boiler safety valves adjusted *6/2/15* Thickness of adjusting washers *all 4 except put aft 5/16*

Material of Crank shaft *Steel* Identification Mark on Do. \_\_\_\_\_ Material of Thrust shaft *Steel* Identification Mark on Do. \_\_\_\_\_

Material of Tunnel shafts *Steel* Identification Marks on Do. \_\_\_\_\_ Material of Screw shafts *Steel* Identification Marks on Do. \_\_\_\_\_

Material of Steam Pipes *Solid drawn Copper* Test pressure *380 lbs.*

**General Remarks** (State quality of workmanship, opinions as to class, &c: *The engines & Boilers of vessel have been examined throughout & found in good condition, the sizes of the shafting & seatings of the engines verified & the case is eligible in my opinion for the notation L.M.C. 2.15 with records of I.S.A. Ref. 185 lbs. No. 2378. G.S. 65 132HP. Screw shaft seen 2.15.*

*This vessel was previously classed with the German Lloyd.*

*The condenser was examined & tested. The steering engine & windlass examined.*

The amount of Entry Fee .. £ \_\_\_\_\_ When applied for, \_\_\_\_\_

Special .. £ *15.00* \_\_\_\_\_

Donkey Boiler Fee .. £ \_\_\_\_\_ When received, \_\_\_\_\_

Travelling Expenses (if any) £ \_\_\_\_\_

*B. Ritchie*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Ships

Committee's Minute \_\_\_\_\_

Assigned *Deferred for completion of hull survey.*

FRI. FEB. 26, 1915  
 FRI. MAY 7, 1915  
 FRI. AUG. 27, 1915  
 TUE. AUG. 31, 1915

Certificates (if required) to be sent to \_\_\_\_\_

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

8/2/15