

# REPORT ON MACHINERY.

No. 27834  
W.F. 16 JUN 1909

Received at London Office

Date of writing Report 10th June 1909 When handed in at Local Office 12th June 1909 Port of Glasgow  
Date, First Survey 4th Dec 1908 Last Survey 11th June 1909  
(Number of Visits 42)

No. in Survey held at Glasgow  
Reg. Book. 10-10  
on the S.S. No. 10  
Tons { Gross  
Net

Master W. S. ... Built at Switzerland By whom built Cantieri Navale Triestino When built 1909  
Engines made at Glasgow By whom made Barclay Curle & Co (C.N. 10) when made 1909  
Boilers made at Do By whom made Do when made 1909  
Port belonging to

Registered Horse Power 247 Owners  
Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes  
Nom. Horse Power as per Section 28 247

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
Dia. of Cylinders 21", 35", 56" Length of Stroke 36" Revs. per minute 10.98 Dia. of Screw shaft 11" Material of screw shaft iron  
as per rule 10.27 as fitted 10.38 as per rule 10.98 as fitted 11"

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 3.9"  
Dia. of Tunnel shaft 10.27 Dia. of Crank shaft journals 10.98 Dia. of Crank pin 11" Size of Crank webs 16 1/4" x 7 1/4" Dia. of thrust shaft under  
collars 11" Dia. of screw 12.6" Pitch of Screw 14.6" No. of Blades 4 State whether moveable No Total surface 50 sq ft

No. of Feed pumps 2 Diameter of ditto 3 1/2" Stroke 18" Can one be overhauled while the other is at work Yes  
No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 18" Can one be overhauled while the other is at work Yes  
No. of Donkey Engines 2 Sizes of Pumps 1 1/2" and 2" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room 2 In Holds, &c. 2

No. of Bilge Injections 1 sizes 5 1/2" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size  
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 Yes  
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  
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  
What pipes are carried through the bunkers Water How are they protected By covers

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 28-12-09 of Stern Tube 2-10 Screw shaft and Propeller 2-10

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Deck  
BOILERS, &c.—(Letter for record Yes) Manufacturers of Steel Wm Beardmore & Steel Co of Scotland

Total Heating Surface of Boilers 3508 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 2 Single Ended  
Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 27-4-09 No. of Certificate 9869  
Can each boiler be worked separately Yes Area of fire grate in each boiler 41.55 sq ft No. and Description of Safety Valves to  
each boiler Double spring loaded Area of each valve 5.939 sq in Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 13'-0" dia. of boilers 13'-0" Length 11'-6" Material of shell plates Steel  
Thickness 1 1/8" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D. Riv.  
long. seams T.A.D.B.S. Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 5/8" Top of plates or width of butt straps 16 5/8"

Per centages of strength of longitudinal joint 85.3 Working pressure of shell by rules 182 lbs Size of manhole in shell 16" x 12"  
Size of compensating ring 5'-6" x 2'-10" x 1 1/8" No. and Description of Furnaces in each boiler 2 Dightons Material Steel Outside diameter 4'-1 1/4"  
Length of plain part 9'-0" Thickness of plates 1 1/8" Description of longitudinal joint Weld No. of strengthening rings 13/16"

Working pressure of furnace by the rules 180 Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 13/16"  
Pitch of stays to ditto: Sides 8" x 8 1/2" Back 8" x 8" Top 9 1/4" x 7 3/4" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 180 End plates in steam space:  
Material of stays iron Diameter at smallest part 1.93" Area supported by each stay 71.68 sq in Working pressure by rules 180 Material of stays Steel

Material Steel Thickness 1 1/8" Pitch of stays 19 1/4" How are stays secured 0. Nuts Working pressure by rules 186 Material of stays Steel  
Diameter at smallest part 6.10" Area supported by each stay 337.25 sq in Working pressure by rules 188 Material of Front plates at bottom Steel  
Thickness 3/4" Material of Lower back plate Steel Thickness 2 3/32" Greatest pitch of stays 14" x 8" Working pressure of plate by rules 189

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 5/8" Material of tube plates Steel Thickness: Front 3 3/4" Back 3 3/32" Mean pitch of stays 9 1/4"  
Pitch across wide water spaces 13 1/2" Working pressures by rules 216 lbs Girders to Chamber tops: Material Steel Depth and  
thickness of girder at centre 9" x 20 3/4" Length as per rule 2.835 Distance apart 9 1/4" Number and pitch of stays in each 3 @ 7 1/4"

Working pressure by rules 180 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked  
separately Diameter 18" Length 18" Thickness of shell plates 1 1/8" Material Steel Description of longitudinal joint Weld Diam. of rivet  
holes 1 1/8" Pitch of rivets 1 1/8" Working pressure of shell by rules 180 Diameter of flue 18" Material of flue plates Steel Thickness 1 1/8"

If stiffened with rings Yes Distance between rings 18" Working pressure by rules 180 End plates: Thickness 1 1/8" How stayed By stays  
Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

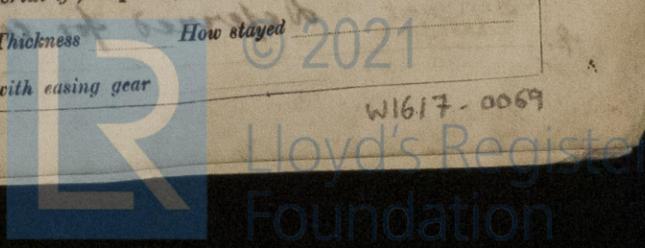
Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes

Working pressure of end plates 180 Area of safety valves to superheater 180 Are they fitted with easing gear Yes



**VERTICAL DONKEY BOILER—**

Manufacturers of Steel

*Reported on separate form*

No.	Description			When made	Where fixed
Made at	By whom made				
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	
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:—

The foregoing is a correct description, **FOR BARCLAY, CURLE & CO., LTD.**

*Wm. Randolph Smith* Director  
Manufacturer

Dates of Survey while building: During progress of work in shops— 1908. Dec 4. 8. 11. 14. 17. 21. 1909. Jan 11. 13. 19. 22. 26. 28. Feb 2. 5. 9. 12. 15. 17.  
During erection on board vessel— 18. 24. March 2. 4. 8. 10. 13. 16. 17. 22. 23. 31. April 2. 6. 9. 13. 16. 20. 23. May 3. 6. 14. June 11.  
Total No. of visits H2. Is the approved plan of main boiler forwarded herewith *No.*

Dates of Examination of principal parts—Cylinders 13.4.09 Slides 9.4.09 Covers 13.4.09 Pistons 9.4.09 Rods 2.2.09  
Connecting rods 2.2.09 Crank shaft 17.3.09 Thrust shaft 10.3.09 Tunnel shafts 18.5.09 Screw shaft 23.4.09 Propeller 18.5.09  
Stern tube 2.4.09 Steam pipes tested Engine and boiler seatings Engines holding down bolts  
Completion of pumping arrangements Boilers fixed Engines tried under steam  
Main boiler safety valves adjusted Thickness of adjusting washers  
Material of Crank shaft *Steel* Identification Mark on Do. *10* Material of Thrust shaft *Steel* Identification Mark on Do. *1060*  
Material of Tunnel shafts *Steel* Identification Marks on Do. *1063:1045* Material of Screw shafts *iron* Identification Marks on Do. *2859.A*  
Material of Steam Pipes Test pressure

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

The machinery has been built under special survey, the material and workmanship being good. It is being forwarded to Trieste for fitting aboard. It is submitted that above vessel will be eligible for a record of + L.M.C. (with date) when the machinery has been fitted aboard and satisfactorily tried under steam. The boilers are duplicates of those fitted for C.N. 9: Man of which has been forwarded.

Certificate (if required) to be sent to

The amount of Entry Fee .. £ 2.0.0 :  
Special .. .. £ 21.4.4 :  
Donkey Boiler Fee .. .. £ : :  
Travelling Expenses (if any) £ : :  
When applied for 12/6/09  
When received 30.7.09

*A. J. Thomas*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **GLASGOW** 15 JUN. 1909

Assigned *Deferred for completion* *job*



© 2021

Lloyd's Register Foundation

Write 'Sheer Strake' opposite its corresponding letter.