

REPORT ON MACHINERY.

No. 29106

Received at London Office THUR. 21 JUL 1910

Date of writing Report 19/7/10 When handed in at Local Office 19/7/10 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 30th March/10 Last Survey 15th July 1910
 Reg. Book. on the S.S. "Kinnaird Head" (Number of Visits 22)
 Master John Campbell Built at Bowling By whom built Scott & Sons (No 223) Tons Gross 190.07 Net 73.35
 Engines made at Glasgow By whom made Gaudie Gillespie (No 100) when made 1910
 Boilers made at Do By whom made A & W Dalglisk (No 466) when made 1910
 Registered Horse Power Owners A. S. Henry & J. MacGregor Port belonging to Lark
 Nom. Horse Power as per Section 28 46 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 14" 30" Length of Stroke 22" Revs. per minute 110 Dia. of Screw shaft as per rule 6.37" Material of screw shaft iron
 as fitted 6.5" 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 2' 5 1/2"
 Dia. of Tunnel shaft as per rule 5.9" Dia. of Crank shaft journals as per rule 6.19" Dia. of Crank pin 6 1/4" Size of Crank webs 12 x 4" Dia. of thrust shaft under
 as fitted 6 1/4" collars 6 1/4" Dia. of screw 7.6" Pitch of Screw 10' 0" No. of Blades 4 State whether moveable No Total surface 33 sq ft
 No. of Feed pumps 1 Diameter of ditto 2 3/4" Stroke 11" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 1 Diameter of ditto 2 3/4" Stroke 11" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines one Sizes of Pumps 4 1/2" x 3" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2 - 2" & 1 spec 3" In Holds, &c. 2 - 2" for 2"
 & 1 spec 2"
 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 Yes - 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 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 none How are they protected Yes
 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 23.6.10 of Stern Tube 23.6.10 Screw shaft and Propeller 23.6.10
 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 D. Colville & Sons
 Total Heating Surface of Boilers 862 sq ft Is Forced Draft fitted No No. and Description of Boilers one single ended
 Working Pressure 125 lbs Tested by hydraulic pressure to 350 lbs Date of test 23.6.10 No. of Certificate 10462
 Can each boiler be worked separately Yes Area of fire grate in each boiler 30 sq ft No. and Description of Safety Valves to
 each boiler double spring loaded Area of each valve 4.9" Pressure to which they are adjusted 150 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers Length Material of shell plates
 Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
 long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
 plate
 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
 bottom
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
 thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
 Working pressure by rules Superheater or Steam chest; how connected to boiler 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 _____ 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:— 2 connecting rod top end bolts & nuts: 2 connecting rod bottom end bolts & nuts: 2 main bearing bolts: 1 set of coupling bolts: 1 set of feed and bilge pump valves: a quantity of assorted bolts & nuts: iron of various sizes

The foregoing is a correct description, *Cauldrie Gillispi & Co. for G.E. Jm*
 Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1910 Mar 30. Apr 4. 7. 13. 18. 22. 27 May 3. 10. 26. June 4. 9. 21. 27
	During erection on board vessel - -	28. 30. July 6. 8. 11. 12. 14. 15.
	Total No. of visits	29

Is the approved plan of main boiler forwarded herewith *yes*
 " " " donkey " " " *none*

Dates of Examination of principal parts—		Cylinders 4. 6. 10	Slides 31. 6. 10	Covers 31. 6. 10	Pistons 26. 5. 10	Rods 21. 6. 10					
Connecting rods	10. 5. 10	Crank shaft	21. 6. 10	Thrust shaft	4. 6. 10	Tunnel shafts	✓	Screw shaft	31. 6. 10	Propeller	21. 6. 10
Stern tube	21. 6. 10	Steam pipes tested	6. 7. 10	Engine and boiler seatings	22. 6. 10	Engines holding down bolts	8. 7. 10				
Completion of pumping arrangements	15. 7. 10	Boilers fixed	15. 7. 10	Engines tried under steam	12. 7. 10						
Main boiler safety valves adjusted	14. 7. 10	Thickness of adjusting washers	P. V. 5/16 S. V. 5/16								
Material of Crank shaft	Steel	Identification Mark on Do.	100	Material of Thrust shaft	Steel	Identification Mark on Do.	100				
Material of Tunnel shafts	✓	Identification Marks on Do.	✓	Material of Screw shafts	iron	Identification Marks on Do.	100				
Material of Steam Pipes	Copper	Test pressure	400 lbs per sq								

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The machinery has been built under special survey: the material and workmanship, and satisfactorily tested under steam
 It is submitted that above vessel is eligible for a record of + L.M.C. 7. 10 in the Register Book

It is submitted that this vessel is eligible for THE RECORD. + LMC 7.10
JRM
 20/7/10
JRM

The amount of Entry Fee	.. £ 1 : 0 : 0	When applied for,	15/7/10
Special £ 5 : 6 : 8	When received,	25. 7. 10
Donkey Boiler Fee £ :		
Traveling Expenses (if any)	£ :		

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

Committee's Minute *Glasgow* 20 JUL. 1910
 Assigned + LMC 7.10

Glasgow

Certificate (if required) to be sent to

J. H. H. 18-7-10.

