

REPORT ON MACHINERY

No. 34766
WED. JAN. 27, 1915

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of Glasgow.
 No. in Survey held at Glasgow. Date, First Survey 13/1/14 Last Survey 19/1/15 19
 Reg. Book. on the S.S. ESPELETTE (Number of Visits 52)
 Master E. Amestoy Built at Greenock. By whom built Geo. Brown & Co (No 89) Tons { Gross 1183
 Engines made at Glasgow By whom made Ross & Duncan (No 942) when made 1915 Net 716
 Boilers made at do. By whom made do. (No 51462.3) when made 1915
 Registered Horse Power Owners Plison & Co Port belonging to Bayonne.
 Nom. Horse Power as per Section 28 152 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no
154

ENGINES, &c.—Description of Engines Triple expansion surf. condg. No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 14 1/2" 24 1/2" 45" Length of Stroke 33" Revs. per minute Dia. of Screw shaft as per rule 9.61" 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 Length of stern bush 3-5"
 Dia. of Tunnel shaft as per rule 8 3/4" Dia. of Crank shaft journals as per rule 9.17" Dia. of Crank pin 9 3/8" Size of Crank webs 14 1/8" x 16 1/2" Dia. of thrust shaft under
 collars 9 1/4" Dia. of screw 11-6" Pitch of Screw 12'-2" No. of Blades 4 State whether moveable no Total surface 42 sq ft
 No. of Feed pumps 2 Diameter of ditto 2 3/4" Stroke 16 1/2" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 3/4" Stroke 16 1/2" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 6 1/2" x 4" x 6" Service Duplex No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3-2 1/2" 1-2 1/2" special In Holds, &c. No 1 - 2 at 2 1/2"; No 2 - 2 at 2 1/2"
No 3 - 2 at 2 1/2" Tunnel well 1-2"
 No. of Bilge Injections / sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes - 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 Forward 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 See Greenock Report to shaft and Propeller
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from S. R. top platforms

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel David Colville Sons, The Lanarkshire Steel Co.
 Total Heating Surface of Boilers 2716 2466 sq ft Is Forced Draft fitted no No. and Description of Boilers 2 - S.E. Marine
 Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 7.10.14 No. of Certificate 12892.
 Can each boiler be worked separately Yes Area of fire grate in each boiler 4 1/4 sq ft No. and Description of Safety Valves to
 each boiler Pair spring loaded Area of each valve 3.94 sq in 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 4'-0" Mean dia. of boilers 12'-3" Length 10'-6" Material of shell plates steel
 Thickness 1 1/2" Range of tensile strength 28/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R.
 long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 7 1/4" Lap of plates or width of butt straps 1'-6 3/4"
 Per centages of strength of longitudinal joint plate rivets 85.6 Working pressure of shell by rules 187 lbs. Size of manhole in shell 16" x 12"
 Size of compensating ring 7" x 1 1/2" No. and Description of Furnaces in each boiler 2 Corrugated Material steel Outside diameter 4'-0 1/4"
 Length of plain part top 19" Thickness of plates crown 32 Description of longitudinal joint weld No. of strengthening rings 19
 Working pressure of furnace by the rules 195 lbs. Combustion chamber plates: Material steel Thickness: Sides 19/32 Back 5" Top 5" Bottom 3 1/2"
 Pitch of stays to ditto: Sides 8 1/2" x 7 1/2" Back 8 1/4" x 8 1/4" Top 4 1/2" x 9 1/4" stays are fitted with nuts or riveted heads nuts Working pressure by rules 186 lbs
 Material of stays steel Diameter at smallest part 1.76 in Area supported by each stay 72 sq in Working pressure by rules 194 lbs End plates in steam space:
 Material steel Thickness 1 1/2" Pitch of stays 16 1/2" x 17 1/2" How are stays secured D.N.O.W. Working pressure by rules 184 lbs Material of stays steel
 Diameter at smallest part 5.41 in Area supported by each stay 289 sq in Working pressure by rules 194 lbs Material of Front plates at bottom steel
 Thickness 13/16" Material of Lower back plate steel Thickness 13/16" Greatest pitch of stays 13 1/2" x 8 1/4" Working pressure of plate by rules 182 lbs
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/8" x 4 1/2" Material of tube plates steel Thickness: Front 13/16" Back 24/32" Mean pitch of stays 9" x 9 1/4"
 Pitch across wide water spaces 14" x 18" S.P. Working pressures by rules 231 lbs. Girders to Chamber tops: Material Iron Depth and
 thickness of girder at centre 8" x 2 1/2" Length as per rule 2'-6 3/4" Distance apart 9 1/2" Number and pitch of stays in each 3-7 1/2" x 9 1/4"
 Working pressure by rules 211 lbs. Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked
 separately Yes Diameter Yes Length Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet
 holes 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
 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 each of top & bottom end & main bearing bolts, a set of coupling bolts, feed & bilge pump valves & seats, a set of valves for each donkey pump, springs for each main engine piston, 2 bottom end braces, condenser & boiler tubes, screwed plain bars, bolts & nuts.

The foregoing is a correct description,

Manufacturer.

Ross & James Rankine & Co.

Dates of Survey while building
 During progress of work in shops -- 1914 Jan 13-21 Feb 5-10-23 Mar 5-12-23-31 Apr 7-27 May 4-6-13-20-25 June 2-9-10-12-16-19-22-25 July 2-6-13
 During erection on board vessel --- 29-31 Aug 6-10-13-19-24 Sept 1-4-8-11-18 Oct 2-7-12-14-19 Nov 25 Dec 9-14-21-23-28 1915 Jan 18-19
 Total No. of visits 52
 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 12. 6. 14 Slides 10. 8. 14 Covers 12. 6. 14 Pistons 10. 8. 14 Rods 22. 6. 14
 Connecting rods 22. 6. 14 Crank shaft 9. 6. 14 Thrust shaft 4. 10. 14 Tunnel shafts 4. 10. 14 Screw shaft 14. 10. 14 Propeller 19. 10. 14
 Stern tube 19. 10. 14 Steam pipes tested 19/10/14 Engine and boiler seatings 25. 11. 14 Engines holding down bolts 23/12/14
 Completion of pumping arrangements 23 24/12/14 Boilers fixed 23/12/14 Engines tried under steam 19/1/15
 Main boiler safety valves adjusted 28/12/14 Thickness of adjusting washers Star 8 5/8 Port Boiler 5 1/2
 Material of Crank shaft Iron Identification Mark on Do. No 942 9.6.14 F.A.F.
 Material of Tunnel shafts Iron Identification Marks on Do. No 942 4.10.14 P.T.B.
 Material of Steam Pipes Solid drawn copper Test pressure 360 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c.) The materials and workmanship are good. The machinery and boilers of this vessel have been built under special survey in accordance with the Rules and approved plans, securely fitted aboard and tried with satisfactory results under steam and are, in our opinion, suitable for classification with record + L.M.C. 1, 15.
 This machinery is duplicate of that fitted in s.s. "USTARITZ"
 Gds. Rpt No. 34449.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 1, 15.

J.W.D. 29/1/15. J.P.S.

The amount of Entry Fee £ 2 - 0 - When applied for, 26/1/15
 Special £ 23 - 2 - 0
 Donkey boiler Fee £ : : When received, 30/1/15
 Travelling Expenses (if any) £ - 9 - 0

P. J. Brown, J. White
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute GLASGOW 26 JAN. 1915
 Assigned + L.M.C. 1, 15.



Certificate (if required) to be sent to

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