

REPORT ON MACHINERY.

No. 17196
WEB. OCT. 31 1917

Received at London Office

Date of writing Report 26/10/17 When handed in at Local Office 26/10/17 Port of Glasgow
No. in Survey held at Port Glasgow Date, First Survey 8.6.14 Last Survey 22/10/1917
Reg. Book. on the S. S. ARDELANIS (Number of Visits 81)
Master F. H. PUTT Built at Port Glasgow By whom built Russell & Co Tons } Gross 4563
Engines made at Port Glasgow By whom made The Clyde Ship & Eng. Co Ltd } Net 2884
Boilers made at do By whom made do When built 1917
Registered Horse Power Owners Steamship Company Ltd Port belonging to Glasgow
Nom. Horse Power as per Section 28 474 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 27-42-70 Length of Stroke 48 Revs. per minute 68 Dia. of Screw shaft as per rule 14.6 Material of 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 No 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 No If two
liners are fitted, is the shaft lapped or protected between the liners No Length of stern bush 5'-0"
Dia. of Tunnel shaft as per rule 13.128 Dia. of Crank shaft journals as per rule 13.85 Dia. of Crank pin 14" Size of Crank webs 4 1/2" x 25 1/2" x 8"
collars 14" Dia. of screw 17-6 Pitch of Screw 16-0 No. of Blades 4 State whether moveable No Total surface 96 sq ft
No. of Feed pumps 2 Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 3 Sizes of Pumps 9x10x10, 8x8x10, 7x9x21 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4 @ 3 1/2" & 1 @ 2 1/2" TUNNEL WELL In Holds, &c. 8 @ 3 1/2"

No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 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 Below
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 No
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
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Engine room platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Steel Co of Scotland
Total Heating Surface of Boilers 7073 sq ft Is Forced Draft fitted Yes No. and Description of Boilers Three single ended built
Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 6/7/17 No. of Certificate 1275
Can each boiler be worked separately Yes Area of fire grate in each boiler 52 sq ft No. and Description of Safety Valves to
each boiler Two spring Area of each valve 8.29 sq in Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 8'-0" Mean dia. of boilers 15'-0" Length 11'-9" 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 No
long. seams T.R. S.B.S. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/2" Lap of plates or width of butt straps 18 1/2"
Per centages of strength of longitudinal joint 85.8% Working pressure of shell by rules 183 lb Size of manhole in shell 16" x 12"
Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 horizontal Material Steel Outside diameter 47 1/2"
Length of plain part top 1' bottom 1' Thickness of plates top 3/8" bottom 3/8" Description of longitudinal joint Welded No. of strengthening rings 1
Working pressure of furnace by the rules 187 lb Combustion chamber plates: Material Steel Thickness: Sides 3/8" Back 3/8" Top 3/8" Bottom 3/8"
Pitch of stays to ditto: Sides 8 1/4" x 8" Back 8 1/4" x 8" Top 8 1/4" x 8" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 185 lb
Material of stays Steel at smallest part 1.45 Area supported by each stay 63.5 sq in Working pressure by rules 183 lb End plates in steam space:
Material Steel Thickness 1" Pitch of stays 15 1/2" x 15 1/2" How are stays secured With nuts Working pressure by rules 183 lb Material of stays Steel
Area at smallest part 4.3 sq in Area supported by each stay 244 sq in Working pressure by rules 183 lb Material of Front plates at bottom Steel
Thickness 1 1/8" Material of Lower back plate Steel Thickness 3/8" Greatest pitch of stays 13 1/4" Working pressure of plate by rules 183 lb
Diameter of tubes 3" Pitch of tubes 4 1/2" Material of tube plates Steel Thickness: Front 1" Back 1 1/8" Mean pitch of stays 9.5"
Pitch across wide water spaces 14" Working pressures by rules 183 lb Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 9 1/4" x 1 1/2" Length as per rule 36.2 Distance apart 8" Number and pitch of stays in each 3 @ 8 1/4"
Working pressure by rules 188 lb Steam dome: description of joint to shell No % of strength of joint No
Diameter No Thickness of shell plates No Material No Description of longitudinal joint No Diam. of rivet holes No
Pitch of rivets No Working pressure of shell by rules No Crown plates No Thickness No How stayed No

SUPERHEATER. Type No Date of Approval of Plan No Tested by Hydraulic Pressure to No
Date of Test No Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler No
Diameter of Safety Valve No Pressure to which each is adjusted No Is Easing Gear fitted No

W 468-0123

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *-*

SPARE GEAR. State the articles supplied:— 2 connecting rods, 2 Piston rods, 2 main beams, 6 holding down & 12 shaft coupling bolts & nuts. 2 feed pump valves, 2 bilge pump valves, 1 Propeller, 6 dog assisted bolts & nuts, a quantity of assorted iron. 6 pump ring bolts & glands cov. & 6 valve chest studs, 1 set in pump valves, 1 set check valves. 120 condenser funnels, 1 safety valve spring.

The foregoing is a correct description,

THE CLYDE SHIPBUILDING & ENGINEERING CO. LIMITED,

W. J. J. J. J.
Director.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - { (1914) June 8. Aug. 3. 7. 11. (1915) Jan. 12. (1916) Jan. 11. 13. Jan. 28. 13. 16. Apr. 12. 20. May 5. June 5. 14. 26. July 12. 25. Aug. 8. Oct. 3. 6. 11. 31. Nov. 23.
During erection on board vessel - - { Dec. 6. (1917) Jan. 9. 16. 24. 29. 30. Feb. 1. 6. 7. 16. 22. Jan. 1. 2. 6. 7. 9. 14. 15. 21. 28. 30. Apr. 2. 3. 13. 17. 18. 19. 23. May 2. 8. 10. 11. 16. 21. 22. June 6. 12. 13. 18. 19.
Total No. of visits 25. July. 18. 23. 24. 27. 31. Aug. 16. 17. 22. 24. 29. Sep. 20. Oct. 4. 10. Is the approved plan of main boiler forwarded herewith *Yes* ✓
18. 22 = 81.

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 3/11/16 Slides 6/12/16 Covers 3/11/16 Pistons 3/12/16 Rods 25/7/16
Connecting rods 25/7/16 Crank shaft 19/6/17 Thrust shaft 9/4/17 Tunnel shafts 1/3/17 Screw shaft 6/6/17 Propeller 10/5/17
Stern tube 19/6/17 Steam pipes tested 20/9/17 Engine and boiler seatings 4/10/17 Engines holding down bolts 4/10/17
Completion of pumping arrangements 10/10/17 Boilers fixed 10/10/17 Engines tried under steam 22/10/17
Completion of fitting sea connections 23/7/17 Stern tube 23/7/17 Screw shaft and propeller 17/8/17
Main boiler safety valves adjusted 10/10/17 Thickness of adjusting washers *5 1/2" P 5 1/2" 5 1/2" P 5 1/2" 5 1/2" P 5 1/2"*
Material of Crank shaft *Steel* Identification Mark on Do. 193 Material of Thrust shaft *Steel* Identification Mark on Do. 193
Material of Tunnel shafts *Steel* Identification Marks on Do. 193 Material of Screw shafts *Steel* Identification Marks on Do. 193
Material of Steam Pipes *Iron* ✓ Test pressure 540 lbs. ✓

Is an installation fitted for burning oil fuel *No* ✓

Is the flash point of the oil to be used over 150°F. *-*

Have the requirements of Section 49 of the Rules been complied with *-*

Is this machinery duplicate of a previous case *No* ✓

If so, state name of vessel *-*

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

The engines & boilers of this vessel have been built under special survey & the material & workmanship are good. On completion they were examined while running full power trials in the Firth & found satisfactory. The machinery throughout is now in good & efficient condition & eligible in my opinion to have the record LMC. 10. 17. marked in the Society's Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC. 10. 17. F. D.

J. M. J. W. D.
11/11/17

The amount of Entry Fee ... £ 3. 0. 0
Special ... £ 43. 14. 0
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 25. 10. 19. 17.
When received, 2/11/17

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 30 OCT. 1917

Assigned + LMC. 10. 17



© 2020

Lloyd's Register
Foundation