

REPORT ON MACHINERY.

No. 17360.

Writing Report 5/Decr 1918 When handed in at Local Office 12 Oct 1918 Port of Greenock Received at London Office WED. 16 OCT. 1918

Survey held at Sos Glasgow Greenock Date, First Survey 27th April, 1914, Last Survey 10th October, 1918

on the Steel Steamer "Argo" (Number of Visits 96)

Master S. Yates Built at Sos Glasgow By whom built Russell & Co Tons { Gross 488 1/2 Net 310 1/4 When built 1918

Machinery made at Greenock By whom made Hankin & Mackinnon Ltd when made 1918

Engines made at Greenock By whom made Hankin & Mackinnon Ltd when made 1918

Registered Horse Power _____ Owners Steamship Argo Co. Ltd. Port belonging to Greenock

Horse Power as per Section 28 488 489 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Engines, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three

No. of Cylinders 26-43-70 Length of Stroke 48 Revs. per minute 70 Dia. of Screw shaft as per rule 1 1/8 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 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

are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 61

Dia. of Tunnel shaft as per rule 13.03 Dia. of Crank shaft journals as per rule 13.68 Dia. of Crank pin 13 1/4 Size of Crank webs 25 1/2 Dia. of thrust shaft under

as fitted 13 1/8 as fitted 13 1/4 Dia. of screw 17.6 Pitch of Screw 16:0 No. of Blades 4 State whether moveable No Total surface 96 sq ft

of Feed pumps Two Diameter of ditto 4 Stroke 26 Can one be overhauled while the other is at work Yes

of Bilge pumps Two Diameter of ditto 4 1/2 Stroke 26 Can one be overhauled while the other is at work Yes

of Donkey Engines Three Sizes of Pumps 12-12-5 1/2-8-4 1/2-6 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Three 3 1/2 In Holds, &c. Two 3 1/2 Tunnel 2 1/2

of Bilge Injections Two sizes 6 1/4 Connected to condenser, or to circulating pump None 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 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

Are all pipes carried through the bunkers Yes How are they protected None

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 Top Station

Boilers, &c.—(Letter for record S) Manufacturers of Steel Readman & Co

Total Heating Surface of Boilers 7345 1/2 Is Forced Draft fitted Yes No. and Description of Boilers Three Single Ended

Working Pressure 180 lb Tested by hydraulic pressure to 260 lb Date of test 28/6/18 No. of Certificate 1553

Can each boiler be worked separately Yes Area of fire grate in each boiler 564 sq ft No. and Description of Safety Valves to

each boiler Two Spring Area of each valve 11.04 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 10 Mean dia. of boilers 15.0 Length 11.6 Material of shell plates Steel

Thickness 1 1/4 Range of tensile strength 28 1/2-32 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams DR, L

Long. seams all on top Diameter of rivet holes in long. seams 1 9/16 Pitch of rivets 9/8 Lap of plates or width of butt straps 18 1/2

Percentages of strength of longitudinal joint rivets 92.7 Working pressure of shell by rules 182 lb Size of manhole in shell 16-12

Size of compensating rings 30 1/2-36 1/2-1 1/4 No. and Description of Furnaces in each boiler 3 Brighton Material Steel Outside diameter 47 1/2

Length of plain part top Thickness of plates drawn Description of longitudinal joint welded No. of strengthening rings 6 ring

Working pressure of furnace by the rules 186 lb Combustion chamber plates: Material Steel Thickness: Sides 4 1/2 Back 4 1/2 Top 4 1/2 Bottom 1 1/2

Pitch of stays to ditto: Sides 9/8-8 1/2 Back 9/8-8 1/2 Top 9/8-8 1/2 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 182 lb

Material of stays Steel Area at smallest part 1.77 sq in Area supported by each stay 77.5 sq in Working pressure by rules 183 lb End plates in steam space:

Material Steel Thickness 1 3/16 Pitch of stays 22-16 3/8 How are stays secured all nut Working pressure by rules 184 lb Material of stays Steel

Area at smallest part 7.24 sq in Area supported by each stay 415.0 sq in Working pressure by rules 182 lb Material of Front plates at bottom Steel

Thickness 1 1/4 Material of Lower back plate Steel Thickness 1 1/4 Greatest pitch of stays 15 1/4 Working pressure of plate by rules 186 lb

Diameter of tubes 2 1/4 Pitch of tubes 4-3 3/8 Material of tube plates Steel Thickness: Front 1 1/4 Back 1 1/4 Mean pitch of stays 9.81

Pitch across wide water spaces 13 1/2 Working pressures by rules 222 lb Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 9 1/2-1 1/2 Length as per rule 34.95 Distance apart 9 1/2 Number and pitch of stays in each Two 8 1/4

Working pressure by rules 181 lb Steam dome: description of joint to shell _____ % of strength of joint _____

Diameter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____

Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SUPERHEATER. Type _____ Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____

Date of Test _____ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler _____

Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____



W1312-0092
W1512-0093

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two top end bolts. Two bottom end bolts. Two main bearing bolts. Two belt coupling bolts. One set dead pump valves. One set bridge pump valves. Bolt nuts. Iron Sprocket.

The foregoing is a correct description,

H. Fenner

Manufacturer.

Dates of Survey while building: During progress of work in shops - 10. 18. 26 (1918). Jan. 16. 18. 24. 29. Feb. 1. 5. 7. 13. 15. 19. 21. 25. 27. Mar. 5. 7. 11. 14. 19. 25. 27. Apr. 1. 4. 9. 12. 16. 18. 22. 25. 29. May 16. 22. 28. 30. June 3. 6. 11. 13. 17. 19. 26. 28. July 2. 18. 22. 24. 25. 30. Aug. 1. 6. 7. 20. 27. Sep. 3. 6. 13. 20. 27. 30. Oct. 1. 7. 14. 21. 28. Nov. 5. 12. 27. Total No. of visits 96.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 26/6/18 Slides 30/7/18 Covers 26/6/18 Pistons 24/7/18 Rods 17/7/18 Connecting rods 17/7/18 Crank shaft 17/7/18 Thrust shaft 24/7/18 Tunnel shafts 24/7/18 Screw shaft 25/7/18 Propeller 24/7/18 Stern tube 24/7/18 Steam pipes tested 13/9/18 Engine and boiler seatings 2/7/18 Engines holding down bolts 3/9/18 Completion of pumping arrangements 3/9/18 Boilers fixed 3/9/18 Engines tried under steam 27/9/18 Completion of fitting sea connections 2/7/18 Stern tube 3/9/18 Screw shaft and propeller 3/9/18 Main boiler safety valves adjusted 27/9/18 Thickness of adjusting washers 7/2 5/2 7/2 5/2 7/2 5/2
Material of Crank shaft 1 steel Identification Mark on Do. 1634 Material of Thrust shaft 1 steel Identification Mark on Do. 1634
Material of Tunnel shafts 1 steel Identification Marks on Do. 1634 Material of Screw shafts 1 steel Identification Marks on Do. 1634
Material of Steam Pipes Iron Test pressure 600 lbs.
Is an installation fitted for burning oil fuel 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 If so, state name of vessel

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

This vessel is fitted to carry oil fuel at 150° in double bottom. The requirements have been complied with.

The machinery and articles of this vessel have been examined under special survey and placed on board in accordance with the Society's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted in the certification + L.M.C. 10. 18. F.D. and fitted to carry oil fuel at 150° in double bottom in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10. 18 F.D.

H. Fenner
23-10-18

James James
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 44 : 8 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 10th October, 1918.
When received, 11th October, 1918.

Committee's Minute GLASGOW 15 OCT 1918

Assigned + L.M.C. 10. 18.
WRITTEN 10. 10. 18

Greenock

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

AC
14. 10. 18

