

REPORT ON MACHINERY.

No. 17312

Received at London Office

Date of writing Report 28th May 1918 When handed in at Local Office 6th June, 1918. Port of Greenock

No. in Survey held at 501 Glasgow & Greenock Date, First Survey 26th July, 1916, Last Survey 3rd June, 1918. (Number of Visits 108.)

Reg. Book. on the Steel Steamer "Argonne"

Master J. H. Bewidge. Built at 501 Glasgow By whom built Russell & Co

Engines made at Greenock By whom made Rankin & Blackmac Ltd when made 1918

Boilers made at Greenock By whom made Rankin & Blackmac Ltd when made 1918

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

Nom. Horse Power as per Section 28 488 ✓ Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓

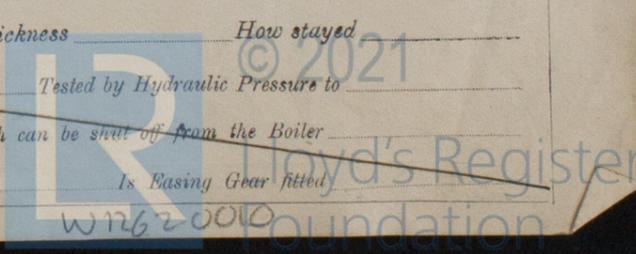
ENGINES, &c.—Description of Engines Triple Compound ✓ No. of Cylinders Three ✓ No. of Cranks Three ✓
 Dia. of Cylinders 26-43-70 ✓ Length of Stroke 48 ✓ Revs. per minute 70 ✓ Dia. of Screw shaft as per rule 14.5 ✓ Material of screw shaft Steel ✓
 Is the screw shaft fitted with a continuous liner the 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 Yes ✓ If two liners are fitted, is the shaft lapped or protected between the liners No ✓ 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 19.8 1/2 ✓ Dia. of thrust shaft under collars 13 1/2 ✓ Dia. of screw 17.6 ✓ Pitch of Screw 16.0 ✓ No. of Blades 4 ✓ State whether moveable No ✓ Total surface 96 1/2 ✓
 No. of Feed pumps Two ✓ Diameter of ditto 4 ✓ Stroke 27 ✓ Can one be overhauled while the other is at work Yes ✓
 No. of Bilge pumps Two ✓ Diameter of ditto 4 ✓ Stroke 27 ✓ Can one be overhauled while the other is at work Yes ✓
 No. 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 In Engine Room Three 3 1/2 ✓ In Holds, &c. Light 3 1/2 Tunnel 2 1/2 ✓

No. of Bilge Injections Two sizes 6 1/2 ✓ Connected to condenser, or to circulating pump Condenser ✓ Is a separate Donkey Suction fitted in Engine room & size 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 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 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 Staircase ✓

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Rankin & Blackmac Ltd ✓
 Total Heating Surface of Boilers 7345 ✓ Is Forced Draft fitted Yes ✓ No. and Description of Boilers Three Single Ended ✓
 Working Pressure 180 lb ✓ Tested by hydraulic pressure to 360 lb ✓ Date of test 14/2/18 ✓ No. of Certificate 1525 ✓
 Can each boiler be worked separately Yes ✓ Area of fire grate in each boiler 56 1/2 ✓ No. and Description of Safety Valves to each boiler Two Churny ✓ Area of each valve 11.04 ✓ 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 12 ✓ Mean dia. of boilers 15.0 ✓ Length 11.6 ✓ Material of shell plates Steel ✓
 Thickness 1 1/16 ✓ Range of tensile strength 28 1/2-32 ✓ Are the shell plates welded or flanged Yes ✓ Descrip. of riveting: cir. seams Yes ✓
 long. seams all cir. rivets ✓ Diameter of rivet holes in long. seams 15/16 ✓ Pitch of rivets 9/16 ✓ Lap of plates or width of butt straps 18 1/2 ✓
 Per centages 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 ring 30 1/2-26 1/2-14 1/2 ✓ No. and Description of Furnaces in each boiler Three Brighton ✓ Material Steel ✓ Outside diameter 47 1/2 ✓
 Length of plain part top 9 1/2 ✓ bottom 9 1/2 ✓ Thickness of plates crown 9/16 ✓ Description of longitudinal joint welded ✓ No. of strengthening rings None ✓
 Working pressure of furnace by the rules 186 lb ✓ Combustion chamber plates: Material Steel ✓ Thickness: Sides 4 1/16 ✓ Back 4 1/16 ✓ Top 4 1/16 ✓ Bottom 12/16 ✓
 Pitch of stays to ditto: Sides 8 1/2-9 1/2 ✓ Back 9 1/2-8 1/2 ✓ Top 9 1/2-8 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 ✓ Area supported by each stay 77.5 ✓ Working pressure by rules 183 lb ✓ End plates in steam space: Material Steel ✓ Thickness 1 7/16 ✓ Pitch of stays 22-18 1/2 ✓ How are stays secured all nuts ✓ Working pressure by rules 184 lb ✓ Material of stays Steel ✓
 Area at smallest part 7.24 ✓ Area supported by each stay 415 ✓ Working pressure by rules 182 lb ✓ Material of Front plates at bottom Steel ✓
 Thickness 13/16 ✓ Material of Lower back plate Steel ✓ Thickness 13/16 ✓ Greatest pitch of stays 18 1/2 ✓ Working pressure of plate by rules 186 lb ✓
 Diameter of tubes 2 1/2 ✓ Pitch of tubes 4-3 1/2 ✓ Material of tube plates Steel ✓ Thickness: Front 13/16 ✓ Back 12/16 ✓ Mean pitch of stays 8-11 1/2 ✓
 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 1/4-1 1/2 ✓ Length as per rule 34 7/8 ✓ Distance apart 9 1/2 ✓ Number and pitch of stays in each Three 8 1/4 ✓
 Working pressure by rules 181 lb ✓ Steam dome: description of joint to shell None ✓ % of strength of joint None ✓
 Diameter None ✓ Thickness of shell plates None ✓ Material None ✓ Description of longitudinal joint None ✓ Diam. of rivet holes None ✓
 Pitch of rivets None ✓ Working pressure of shell by rules None ✓ Crown plates None ✓ Thickness None ✓ How stayed None ✓

SUPERHEATER. Type None ✓ Date of Approval of Plan None ✓ Tested by Hydraulic Pressure to None ✓
 Date of Test None ✓ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler None ✓
 Diameter of Safety Valve None ✓ Pressure to which each is adjusted None ✓ Is Easing Gear fitted None ✓

Rankin & Blackmac Ltd



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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— The top end bolts. The bottom end bolts. The main bearing bolts. The side connecting bolts. One set dead screw valves. One set single screw valves. Bolts nuts &c. Propeller. Three cylinder escape valves & springs. One set escape valves and springs. One set crank pin bushes. Three safety valves &c.

The foregoing is a correct description,

RANKIN & BLACKMORE, LTD.

H. Brown

Manufacturer.

(1916) July 26. Oct. 30. Nov. 2. Dec. 5. 7. 18. 1917. Jan. 30. Feb. 2. 7. 12. 15. 19. 23. Mar. 1. 12. 23. 27. 29. Apr. 3. 6. 11. 13. 17. 27. May 11. 14. 22. 24. 29. June 6. 8. 12. 15. 18. 22. July 3. 19. 24. Aug. 2. 14. 16. 23. Oct. 2. 8. 10. 17. 18. 23. 26. 27. 31. Nov. 5. 12. 14. 16. 21. 27. 29. Dec. 3. 6. 10. 18. 20. 26. (1918) Jan. 8. 11. 16. 18. 24. 29. Feb. 1. 5. 7. 13. 14. 15. 19. 21. 25. 27. Mar. 5. 7. 11. 14. 19. 25. 27. Apr. 1. 4. 6. 9. 11. 12. 16. 17. 25. May 2. 8. 9. 14. 18. 20. 21. 23. 24. 27. 28. 31. June 3. — Total No. of visits 108.

Is the approved plan of main boiler forwarded herewith *Yes*

Is the approved plan of donkey boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders 26/12/17 Slides 24/2/18 Covers 26/12/17 Pistons 24/2/18 Rods 29/1/18

Connecting rods 29/1/18 Crank shaft 19/12/17 Thrust shaft 29/3/18 Tunnel shafts 29/3/18 Screw shaft 29/3/18 Propeller 14/3/18

Stern tube 4/4/18 Steam pipes tested 18. 21. 23. 25 / 5/18 Engine and boiler seatings 17/4/18 Engines holding down bolts 17/5/18

Completion of pumping arrangements 17/5/18 Boilers fixed 17/5/18 Engines tried under steam 31/5/18

Completion of fitting sea connections 17/4/18 Stern tube 17/4/18 Screw shaft and propeller 17/5/18

Main boiler safety valves adjusted 27/5/18 Thickness of adjusting washers 3/4" 5/4" - 3/4" 5/4" - 3/4" 5/4"

Material of Crank shaft *Steel* Identification Mark on Do. 272 Material of Thrust shaft *Steel* Identification Mark on Do. 272

Material of Tunnel shafts *Steel* Identification Marks on Do. 272 Material of Screw shafts *Steel* Identification Marks on Do. 272

Material of Steam Pipes *Iron* Test pressure *600 lbs*

Is an installation fitted for burning oil fuel *Yes* 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 *Yes*

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel —

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

This vessel has been fitted to carry fuel oil at 150° in Ballast Tank (double bottom). The requirements have been carried out, with the exception of the printing. A material piece of rubber has been fitted, owing to the inability of the Engineer to procure brown paper. The owner's Engineer has agreed to this, in this case.

The machinery and boilers of this vessel has 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 for the satisfaction of L.M.C. 6-18-F.D. to carry oil fuel in Ballast Tank at 150° in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 6.18. F.D.

J.W.D. 14/6/18. *J.P.R.*

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

Table with 4 columns: Fee type, Amount (£), and Date. Rows include Entry Fee (£ 3 : 0), Special (£ 4/4 : 0), Donkey Boiler Fee (£ : :), and Travelling Expenses (£ : :).

Committee's Minute GLASGOW. 11 JUN 1918

Assigned + L.M.C. 6, 18 *J.D.*

Greenock

J.C. 10.6.18

