

## REPORT ON MACHINERY.

No. 17327

WED. JUL. 10. 1918

Received at London Office

Date of writing Report 4 July 1918 When handed in at Local Office 4 July 1918 Port of Greenock  
No. in Survey held at Greenock Date, First Survey 30<sup>th</sup> Nov. 1917, Last Survey 5<sup>th</sup> July 1918.  
Reg. Book. on the Steel Screw Steamer Messrs Messrs Messrs (Number of Visits 67)

ster Built at Glasgow By whom built Lloyd's Register Tons Gross 1502 Net 1502 When built 1918  
ines made at Greenock By whom made John S. Kincaid & Co. when made 1918  
lers made at Greenock By whom made John S. Kincaid & Co. when made 1918  
ristered Horse Power Owners Port belonging to Glasgow  
n. Horse Power as per Section 28 549 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

GINES, &c.—Description of Engines Triple Compound No. of Cylinders Three No. of Cranks Three  
a. of Cylinders 27-45-75 Length of Stroke 48 Revs. per minute 75 Dia. of Screw shaft 15.02 Material of 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 Yes If the liner does not fit tightly at the part  
ween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two  
ers are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 65  
ia. of Tunnel shaft 15.4 Dia. of Crank shaft journals 14.05 Dia. of Crank pin 14.4 Size of Crank webs 21.9 Dia. of thrust shaft under  
llars 14.4 Dia. of screw 18.3 Pitch of Screw 17.6 No. of Blades 4 State whether moveable Yes Total surface 110 sq ft  
o. of Feed pumps Two Diameter of ditto 4 1/2 Stroke 25 Can one be overhauled while the other is at work Yes  
o. of Bilge pumps Two Diameter of ditto 4 1/2 Stroke 25 Can one be overhauled while the other is at work Yes  
o. of Donkey Engines Two Sizes of Pumps 15.10 - 5.8 No. and size of Suctions connected to both Bilge and Donkey pumps  
n Engine Room Three 3/4 In Holds, &c. Three 3/4 Three 3/4

Circulating Pump Separate Engine  
Vo. of Bilge Injections Two sizes 8 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 3/4  
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  
What pipes are carried through the bunkers Yes 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  
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from 1st Stair Down

BOILERS, &c.—(Letter for record S) Manufacturers of Steel White Iron & Handmade, Glasgow  
Total Heating Surface of Boilers 5151 sq ft 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 2-8-9/5/18 No. of Certificate 1329.1340  
Can each boiler be worked separately Yes Area of fire grate in each boiler 62 sq ft No. and Description of Safety Valves to  
each boiler Two Opening Area of each valve 9.62 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 9 Mean dia. of boilers 15.6 Length 12.0 Material of shell plates Steel  
Thickness 1 1/4 Range of tensile strength 25-32 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams Yes  
long. seams Yes Diameter of rivet holes in long. seams 15/16 Pitch of rivets 9/16 Lap of plates or width of butt straps 19 1/2  
Per centages of strength of longitudinal joint 88.2 Working pressure of shell by rules 182 lb Size of manhole in shell 16 x 12  
Size of compensating ring None No. and Description of Furnaces in each boiler 3 Single Material Steel Outside diameter 49 1/2  
Length of plain part Yes Thickness of plates 1 1/4 Description of longitudinal joint Welded No. of strengthening rings None  
Working pressure of furnace by the rules 180 lb Combustion chamber plates: Material Steel Thickness: Sides 10/16 Back 10/16 Top 10/16 Bottom 12/16  
Pitch of stays to ditto: Sides 9 1/4 - 7 1/4 Back 9 - 8 1/2 Top 9 1/4 - 7 1/4 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 180 lb  
Material of stays Steel Area at smallest part 1.79 Area supported by each stay 68.4 Working pressure by rules 181 lb End plates in steam space:  
Material Steel Thickness 1 1/4 Pitch of stays 2 1/4 How are stays secured With nuts Working pressure by rules 180 lb Material of stays Steel  
Area at smallest part 8.29 Area supported by each stay 452 Working pressure by rules 190 lb Material of Front plates at bottom Steel  
Thickness 15/16 Material of Lower back plate Steel Thickness 13/16 Greatest pitch of stays 13 Working pressure of plate by rules 183 lb  
Diameter of tubes 2 1/2 Pitch of tubes 3 1/4 - 3 1/4 Material of tube plates Steel Thickness: Front 15/16 Back 1 1/16 Mean pitch of stays 9.51  
Pitch across wide water spaces 13 Working pressures by rules 187 lb Girders to Chamber tops: Material Steel Depth and  
thickness of girder at centre 10 1/2 x 1 1/2 Length as per rule 24.6 Distance apart 9 1/4 Number and pitch of stays in each Three 7 1/4  
Working pressure by rules 183 lb Steam dome: description of joint to shell Yes % of strength of joint  
Diameter 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 Crown plates Yes Thickness Yes How stayed Yes  
SUPERHEATER. Type Yes Date of Approval of Plan Yes Tested by Hydraulic Pressure to Yes  
Date of Test Yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes  
Diameter of Safety Valve Yes Is Easing Gear fitted Yes



IS A DONKEY BOILER FITTED? *Yes*

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

SPARE GEAR. State the articles supplied:— *The top end bolts. The bottom end bolts. The main bearing bolts. One set coupling bolts. One set feed pump valves. One set bilge pump valves. One cylinder escape valve and spring cock eye. One safety valve opening. Safety valve. Bolts nuts &c.*

The foregoing is a correct description,  
FOR JOHN G. KINCAID & COY., LIMITED.

*Robert Green.*

Secretary

Manufacturer.

Dates of Survey while building { During progress of work in shops -- (1917) Nov. 30. Dec. 20. (1918) Jan. 9. 17. 21. 24. 25. 28. 29. 30. 31. Feb. 4. 6. 7. 8. 14. 18. 20. 22. 25. Mar. 1. 4. 6. 8. 12. 15. 19. 21. 26. 28. Apr. 4. 5. 9. 11. 16. 18. 19. 23. 24. 26. 29. May. 1. 2. 3. 6. 7. 8. 9. 15. 17. 20. 23. 27. 29. 31. June. 4. 5. 7. 12. 14. 19. 25. 28. July 5  
During erection on board vessel --  
Total No. of visits *67*

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

Dates of Examination of principal parts—Cylinders *19/4/18* Slides *26/4/18* Covers *19/4/18* Pistons *26/4/18* Rods *24/4/18*  
Connecting rods *5/4/18* Crank shaft *19/4/18* Thrust shaft *19/4/18* Tunnel shafts *19/4/18* Screw shaft *19/4/18* Propeller *26/4/18*  
Stern tube *9/4/18* Steam pipes tested *29/5/18* Engine and boiler seatings *3/5/18* Engines holding down bolts *27/5/18*  
Completion of pumping arrangements *5/6/18* Boilers fixed *30/5/18* Engines tried under steam *7/6/18*  
Completion of fitting sea connections *26/4/18* Stern tube *26/4/18* Screw shaft and propeller *7/5/18*  
Main boiler safety valves adjusted *3/5/18* Thickness of adjusting washers *2 15/32 5 1/4 - 2 1/4 5 1/4 - 2 15/32 5 1/4*  
Material of Crank shaft *Steel* Identification Mark on Do. *5831* Material of Thrust shaft *Steel* Identification Mark on Do. *5831*  
Material of Tunnel shafts *Steel* Identification Marks on Do. *2907 N* Material of Screw shafts *Steel* Identification Marks on Do. *2907*  
Material of Steam Pipes *Steel* 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. *Yes*  
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 is fitted to carry fuel oil in double bottom above 150°F. The requirements have been complied with.*

*The Machinery and Boilers of this Steamer have been constructed under special survey, and placed on board in accordance with the Society's Rules. They are now in our opinion in safe working condition and subject fully submitted for the Certification + L.M.C. 7.18 F.D. To carry fuel oil in double bottom above 150°F. in the Register Book.*

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 7.18. F.D.

*Note*

*See Damage Report as regards Sashua attached hereto*

The amount of Entry Fee £ *3* : *0* :  
Special *Damage* £ *47* : *9* :  
Donkey Boiler Fee £ : :  
Travelling Expenses (if any) £ : :  
When applied for, *6/7/1918*  
When received, *9.7.18*

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

Committee's Minute GLASGOW 9 JUL 1918

Assigned + L.M.C. 7.18.



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Foundation