

## REPORT ON MACHINERY.

No. 17792

Received at London Office

WED. 4 MAY. 1921

Date of writing Report 9<sup>th</sup> March 1921 When handed in at Local Office 14/3/21 19 Port of GreenockNo. in Survey held at Anderson's Greenock Date, First Survey 28<sup>th</sup> October, 1919 Last Survey 10<sup>th</sup> March 1921  
Reg. Book. on the Steel Screw Steamer Ordmore (Number of Visits 79)

Master Built at Anderson By whom built Anderson &amp; Co Ltd When built 1921

Engines made at Greenock By whom made John S Kincaid &amp; Co Ltd when made 1921

Boilers made at Greenock By whom made John S Kincaid &amp; Co Ltd when made 1921

Registered Horse Power Owners Port belonging to

Nom. Horse Power as per Section 28 553 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted 24

ENGINES, &c.—Description of Engines Triple compound No. of Cylinders Four No. of Cranks Four  
Dia. of Cylinders 26"-42"-48"-48" Length of Stroke 42" Revs. per minute 95 Dia. of Screw shaft as per rule 13.75" Material of screw shaft 1 1/2" steel  
Is the screw shaft fitted with a continuous liner the whole length of the stern tube 24 Is the after end of the liner made water tight in the propeller boss 24 If the liner is in more than one length are the joints burned ✓ 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 — If two liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 56"  
Dia. of Tunnel shaft as per rule 12.25" Dia. of Crank shaft journals as per rule 13.5" Dia. of Crank pin 13 1/2" Size of Crank webs 27 1/2" Dia. of thrust shaft under collars 13 1/2" Dia. of screw 14" Pitch of Screw 18" No. of Blades 4 State whether moveable 24 Total surface 74 sq ft  
No. of Feed pumps 24 Diameter of ditto 8" Stroke 21" Can one be overhauled while the other is at work 24  
No. of Bilge pumps 24 Diameter of ditto 3" Stroke 21" Can one be overhauled while the other is at work 24  
No. of Donkey Engines 24 Sizes of Pumps 10"-10"-6" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room In Holds, &c.

## Circulating Pump Separate Engine

No. of Bilge Injections 24 sizes 8" Connected to condenser, or to circulating pump 24 Is a separate Donkey Suction fitted in Engine room & size 2 1/2"  
Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible  
Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate  
What pipes are carried through the bunkers How are they protected  
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times  
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges  
Is the Screw Shaft Tunnel watertight 24 Is it fitted with a watertight door 24 worked from 24

## BOILERS, &amp;c.—(Letter for record 2) Manufacturers of Steel Colville &amp; Co Glasgow

Total Heating Surface of Boilers 8932 sq ft Is Forced Draft fitted 24 No. and Description of Boilers Four Single Ended  
Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test 24/2/20 No. of Certificate 1457-1462  
Can each boiler be worked separately 24 Area of fire grate in each boiler 53.62 sq ft No. and Description of Safety Valves to each boiler 24 Are they fitted with easing gear 24  
Smallest distance between boilers or uptakes and bunkers or woodwork 13" Mean dia. of boilers 13.9" Length 12'0" Material of shell plates 1 1/2" steel  
Thickness 1 1/2" Range of tensile strength 28-32 Are the shell plates welded or flanged ✓ Descrip. of riveting: seams all rivet  
long. seams all rivet Diameter of rivet holes in long. seams 17/16" Pitch of rivets 9/16" Lap of plates or width of butt straps 19 1/2"  
Per centages of strength of longitudinal joint rivets 85.55" plate 85.6" Working pressure of shell by rules 211 lb Size of manhole in shell 16" 12"  
Size of compensating ring 8" 19/2" No. and Description of Furnaces in each boiler Three Union Material 1 1/2" steel Outside diameter 43 1/4"  
Length of plain part top 19 1/2" bottom 19 1/2" Thickness of plates crown 19 1/2" bottom 19 1/2" Description of longitudinal joint welded No. of strengthening rings 24  
Working pressure of furnace by the rules 233 lb Combustion chamber plates: Material 1 1/2" steel Thickness: Sides 1 1/2" Back 1 1/2" Top 1 1/2" Bottom 1 1/2"  
Pitch of stays to ditto: Sides 8 1/2" 8 1/2" Back 8 1/2" Top 8 1/2" 8 1/2" If stays are fitted with nuts or riveted heads 24 Working pressure by rules 211 lb  
Material of stays 1 1/2" steel Area at smallest part 2.15" Area supported by each stay 78" Working pressure by rules 203 lb End plates in steam space: Material 1 1/2" steel Thickness 1 1/2" Pitch of stays 20" 18" How are stays secured all rivet Working pressure by rules 204 lb Material of stays 1 1/2" steel  
Area at smallest part 7.24" Area supported by each stay 360" Working pressure by rules 209 lb Material of Front plates at bottom 1 1/2" steel  
Thickness 1 1/2" Material of Lower back plate 1 1/2" steel Thickness 1 1/2" Greatest pitch of stays 13" Working pressure of plate by rules 205 lb  
Diameter of tubes 2 1/2" Pitch of tubes 3 1/2" 3 1/2" Material of tube plates 1 1/2" steel Thickness: Front 1 1/2" Back 1 1/2" Mean pitch of stays 7.3"  
Pitch across wide water spaces 13 1/2" Working pressures by rules 209 lb Girders to Chamber tops: Material 1 1/2" steel Depth and thickness of girder at centre 10 1/2" 19 1/2" Length as per rule 37.62" Distance apart 8 1/2" Number and pitch of stays in each 24 8 1/2"  
Working pressure by rules 205 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

003572-003580-0226



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. One set coupling bolts. One set feed pump valves. One set ridge pump valves. One main crank pin lasher. One escape valve spring each side. One safety valve spring both ends. &c

The foregoing is a correct description,

FOR JOHN G. KINCAID & COY., LIMITED.

*W. G. Carter*

Manufacturer.

General Manager

Arthur Street Engine Works.

Dates of Survey while building { During progress of work in shops - - 1919. Oct. 2. 5. Nov. 2. 14. 21. Dec. 2. 7. 12. 15. 18. 22. 26. 30. 1920. Jan. 8. 13. 16. 20. 23. 28. Feb. 3. 10. 17. 19. 24. Mar. 1. 4. 8. 10. 17. 22. 26. 30. Apr. 2. 7. 12. 28. May. 3. 4. 5. 7. 13. 17. 21. 26. 28. 31. June 4. 8. 9. 11. 16. 24. July 15. 17. 21. 26. 27. 28. Aug. 2. 4. 5. 11. 17. 19. 30. Sept. 10. 16. 21. 22. 26. 29. 30. Oct. 6. 7. 8. 15. 1921. Feb. 22. March 10.

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

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders *4/5/20* Slides *26/5/20* Covers *4/5/20* Pistons *26/5/20* Rods *10/5/20*

Connecting rods *4/6/20* Crank shaft *19/4/20* Thrust shaft *19/4/20* Tunnel shafts *26/5/20* Screw shaft *16/6/20* Propeller *11/6/20*

Stern tube *16/6/20* Steam pipes tested *19/4/20* Engine and boiler seatings *19/4/20* Engines holding down bolts *11/10/20*

Completion of pumping arrangements *✓* Boilers fixed *✓* Engines tried under steam *10/5/21*

Completion of fitting sea connections *✓* Stern tube *✓* Screw shaft and propeller *✓*

Main boiler safety valves adjusted *22/2/21* Thickness of adjusting washers *F 1 7/8 A 7/16 - F 1 1/2 A 7/16 - F 1 1/4 A 13/16 - F 5/16 A 7/16*

Material of Crank shaft *Steel* Identification Mark on Do. *379* Material of Thrust shaft *Steel* Identification Mark on Do. *379*

Material of Tunnel shafts *Steel* Identification Marks on Do. *379* Material of Screw shafts *Steel* Identification Marks on Do. *379*

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

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 *✓*

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.*

The Machinery and Boiler 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 the case is respectfully recommended for the satisfaction of L.M.C. 21 fitted for oil fuel F.P. above 150°F.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. A.21. F.D.C.L. Fitted for oil fuel A.21. F.P. above 160°F.

MACHINERY CERT. WRITTEN 16.11.21 (dated 4/5/21)

The amount of Entry Fee ... £ 6 : 0 : When applied for. 14/3/21  
Special ... £ 102 : 15 :  
Donkey Boiler Fee ... £ : : When received. 4.5.21  
Travelling Expenses (if any) £ 1 : 19 : 19/6/21

Committee's Minute

GLASGOW 3-MAY 1921

Assigned See Glasgow report no 40318.

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



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