

# 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 Greenock

No. 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 & Co Ltd When built 1921

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

Boilers made at Greenock By whom made John S Kincaid & 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 yes

## ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders Four No. of Cranks Four

Dia. of Cylinders 26-42-48 1/2-48 1/2 Length of Stroke 42 ✓ Revs. per minute 95 Dia. of Screw shaft as per rule 13.75 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 no 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 12.95 Dia. of Crank shaft journals as per rule 13.5 ✓ Dia. of Crank pin 13 3/8 Size of Crank webs 27 1/2 x 9 Dia. of thrust shaft under collars 13 7/8 Dia. of screw 14:0 Pitch of Screw 18:3 No. of Blades 4 State whether moveable no Total surface 74 sq ft ✓

No. of Feed pumps Two Diameter of ditto 8 Stroke 21 Can one be overhauled while the other is at work yes ✓

No. of Bilge pumps Two Diameter of ditto 3 Stroke 21 Can one be overhauled while the other is at work yes ✓

No. of Donkey Engines Two Sizes of Pumps 10-10-6.8 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 one sizes 8 Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size yes 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 yes Is it fitted with a watertight door yes worked from top of hull

## BOILERS, &c.—(Letter for record 2) Manufacturers of Steel Cottrill & Co Greenock

Total Heating Surface of Boilers 8932 sq ft Is Forced Draft fitted yes No. and Description of Boilers Four Single Ended

Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test 24/2, 1/2/20 No. of Certificate 1457-1462

Can each boiler be worked separately yes Area of fire grate in each boiler 53.62 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 205 lb Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 13 Mean dia. of boilers 13.9 Length 12:0 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: seams all riveted

long. seams all riveted Diameter of rivet holes in long. seams 1 7/16 Pitch of rivets 9/8 Lap of plates or width of butt straps 19 1/2

Per centages of strength of longitudinal joint rivets 85.85 Working pressure of shell by rules 211 lb Size of manhole in shell 16:12

Size of compensating ring 8:19 1/2 No. and Description of Furnaces in each boiler Three Union Material Steel Outside diameter 43 1/4

Length of plain part top \_\_\_\_\_ Thickness of plates bottom 19/16 Description of longitudinal joint welded No. of strengthening rings None

Working pressure of furnace by the rules 233 lb Combustion chamber plates: Material Steel Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 1 3/16

Pitch of stays to ditto: Sides 8 7/16: 8 1/2 Back 8 1/2 Top 8 7/16: 8 1/2 If stays are fitted with nuts or riveted heads no Working pressure by rules 211 lb

Material of stays Steel Area at smallest part 2.15 Area supported by each stay 78 Working pressure by rules 205 lb End plates in steam space: \_\_\_\_\_

Material Steel Thickness 1 1/2 Pitch of stays 20:18 How are stays secured all nuts Working pressure by rules 204 lb Material of stays 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 Steel

Thickness 1 1/2 Material of Lower back plate Steel Thickness 1 1/16 Greatest pitch of stays 13 Working pressure of plate by rules 205 lb

Diameter of tubes 2 1/2 Pitch of tubes 3 3/4: 3 7/8 Material of tube plates Steel Thickness: Front 1 1/2 Back 1 1/16 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 Steel Depth and thickness of girder at centre 10 1/4: 1 1/16 Length as per rule 37.62 Distance apart 8 1/4 Number and pitch of stays in each Three 8 7/8

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

© 2021

Lloyd's Register Foundation

If not, state whether, and when, one will be sent

Amounts to £11

21448

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 Dead Pump valves. One set Sledge Pump valves. One main crank pin lasher. One escape valve spring each side. One safety valve spring both ends. etc

The foregoing is a correct description,

FOR JOHN G. KINCAID & COY., LIMITED.

*W. J. Carter* Manufacturer.

Arthur Street Engine Works.

Dates of Survey while building: During progress of work in shops -- 1919 Oct. 2, 7, 11, 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, 15, 21. May 3, 4, 5, 7, 13, 17, 21, 26, 29, 31. Jun 4, 8, 9, 11, 16, 24. July 15, 17, 21, 26, 27, 28. Aug 2, 4, 5, 11, 17, 19, 30. Sep 10, 16, 21, 22, 26, 29, 30. Oct 6, 7, 13. During erection on board vessel --- Nov 15, 1921. Feb 22. March 10. Total No. of visits 79.

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

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 19/4/20 Engine and boiler seatings Engines holding down bolts 11/10/20

Completion of pumping arrangements Boilers fixed Engines tried under steam 10/3/21

Completion of fitting sea connections Stern tube Screw shaft and propeller P.F. - P.A. - S.F. - S.A

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

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.

*Roll* 10/3/21 *ARR*

MACHINERY CERT. WRITTEN (6.11.21) (dated 4/5/21)

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

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

Committee's Minute GLASGOW 3-MAY 1921

Assigned See Glasgow report no 40318.

GREENOCK

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

