

## REPORT ON MACHINERY.

No. 17123.

Received at London Office

WED. 14 MAR. 1917

Date of writing Report 5 Mar 1917 When handed in at Local Office 9 March 1917 Port of GreenockNo. in Survey held at Greenock  
Reg. Book.Date, First Survey 14<sup>th</sup> June 1916: Last Survey 8 March 1917on the Steel Steamer Beechpark

(Number of Vents 82)

Tons { Gross 4763  
Net 3503Master Built at Greenock By whom built Greenock Steamship Co. Ltd. When built 1917Engines made at Greenock By whom made John & Kincaid & Co. Ltd. when made 1917Boilers made at Greenock By whom made John & Kincaid & Co. Ltd. when made 1917Registered Horse Power Owners J. J. Denholm Port belonging to GreenockNom. Horse Power as per Section 28 324 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

## ENGINES, &amp;c.—Description of Engines

Triple compound

No. of Cylinders Three No. of Cranks ThreeDia. of Cylinders 24"-40"-65" Length of Stroke 45" Revs. per minute 75 Dia. of Screw shaft 13 1/2" Material of screw shaft SteelIs 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 tightin 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive no If twoliners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 5 1/2"Dia. of Tunnel shaft 12 1/2" Dia. of Crank shaft journals 12 1/2" Dia. of Crank pin 12 1/2" Size of Crank webs 19 1/2" Dia. of thrust shaft undercollars 12 1/2" Dia. of screw 16 1/2" Pitch of Screw 17 1/2" No. of Blades 4 State whether moveable no Total surface 85 sq ftNo. of Feed pumps Two Diameter of ditto 4" Stroke 21" Can one be overhauled while the other is at work yesNo. of Bilge pumps Two Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work yesNo. of Donkey Engines Three Sizes of Pumps 5 1/2"-5 1/2"-5 1/2"-10" No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room Three 5 1/2" In Holds, &c. None 5 1/2" dry tank 5" tunnel 5"No. of Bilge Injections Two sizes 6" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 5 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 yesAre all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks bothAre 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 aboveAre 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 yesWhat pipes are carried through the bunkers no How are they protected noAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yesDates of examination of completion of fitting of Sea Connections 25/12/16 of Stern Tube 25/12/16 Screw shaft and Propeller 20/2/17Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from 1st StaircaseBOILERS, &c.—(Letter for record O) Manufacturers of Steel Stanger & Co. Ltd. GreenockTotal Heating Surface of Boilers 5308 sq ft Is Forced Draft fitted no No. and Description of Boilers Two single endedWorking Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 10/2/17 No. of Certificate 1276Can each boiler be worked separately yes Area of fire grate in each boiler 65 1/2 sq ft No. and Description of Safety Valves toeach boiler Two spring Area of each valve 7.07 sq in Pressure to which they are adjusted 185 lb Are they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork 21" Mean dia. of boilers 15.9" Length 11.6" Material of shell plates steelThickness 1 1/2" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams doublelong. seams all chain Diameter of rivet holes in long. seams 1 7/16" Pitch of rivets 9 7/16" Lap of plates or width of butt straps 19 1/2"Per centages of strength of longitudinal joint 86.44 Working pressure of shell by rules 180 lb Size of manhole in shell 16" x 12"Size of compensating ring 1 1/2" No. and Description of Furnaces in each boiler 3 high pressure Material steel Outside diameter 50 1/2"Length of plain part top Thickness of plates crown Description of longitudinal joint welded No. of strengthening rings 6 ringWorking pressure of furnace by the rules 187 lb Combustion chamber plates: Material steel Thickness: Sides 2 1/2" Back 10/16" Top 2 1/2" Bottom 12/16"Pitch of stays to ditto: Sides 9 1/2"-9" Back 9-8 1/2" Top 9 1/2"-9" If stays are fitted with nuts or riveted heads yes Working pressure by rules 181 lbMaterial of stays steel Diameter at smallest part 1.79" Area supported by each stay 52.12 sq in Working pressure by rules 196 lb End plates in steam space:Material steel Thickness 1 7/8" Pitch of stays 21"-20 1/2" How are stays secured all nut Working pressure by rules 181 lb Material of stays steelDiameter at smallest part 11.26" Area supported by each stay 430.5 sq in Working pressure by rules 196 lb Material of Front plates at bottom steelThickness 1 1/2" Material of Lower back plate steel Thickness 1 1/2" Greatest pitch of stays 15" Working pressure of plate by rules 182 lbDiameter of tubes 3 1/2" Pitch of tubes 4 1/2"-4 7/8" Material of tube plates steel Thickness: Front 1" Back 1 1/4" Mean pitch of stays 11.18"Pitch across wide water spaces 14" Working pressures by rules 185 lb Girders to Chamber Tops: Material steel Depth andthickness of girder at centre 8 7/8"-11 1/2" Length as per rule 52.57 Distance apart 9" Number and pitch of stays in each two 9 1/2"Working pressure by rules 182 lb Superheater or Steam chest; how connected to boiler no Can the superheater be shut off and the boiler workedseparately no Diameter no Length no Thickness of shell plates no Material no Description of longitudinal joint no Diam. of rivetholes no Pitch of rivets no Working pressure of shell by rules no Diameter of flue no Material of flue plates no Thickness noIf stiffened with rings no Distance between rings no Working pressure by rules no End plates: Thickness no How stayed noWorking pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear noWorking pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear noWorking pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear noWorking pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear noWorking pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear noWorking pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear no



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 bridge pump valves. Bolt nuts, &c. Four cylinder cross valves. One safety valve spring. Pressure.*

The foregoing is a correct description,

For and on  
behalf of

JOHN G. KINCAID & COY., LIMITED.

*J. Nicoll*

Director

Manufacturer.

Dates of Survey while building { During progress of work in shops - - (1916) June 14-19-21-23 July 10-17-20-27 Aug. 7-14-17-23 Sep. 11-13-20-22-25-27-29 Oct. 2-4-6-9-10-12-13-17-20-24-26-30 Nov. 1-3-6-8-10-14-17-24-28-29 Dec. 1-6-8-12-13-15-20-22-25-26-29 (1917) Jan. 7-10-12-15-16-18-19-22-24-29-30-31 Feb. 1-5-7-8-10-13-14-15-19-20-22-26-28 March 7-8  
Total No. of visits

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

" " " donkey " " " *Yes*

Dates of Examination of principal parts—Cylinders *21/11/16* Slides *22/12/16* Covers *21/11/16* Pistons *22/12/16* Rods *22/12/16*

Connecting rods *12/12/16* Crank shaft *29/11/16* Thrust shaft *27/11/16* Tunnel shafts *7/1/17* Screw shaft *22/12/16* Propeller *22/12/16*

Stern tube *20/12/16* Steam pipes tested *26/2/17* Engine and boiler seatings *25/12/16* Engines holding down bolts *7/1/17*

Completion of pumping arrangements *29/2/17* Boilers fixed *29/2/17* Engines tried under steam *29/2/17*

Main boiler safety valves adjusted *29/2/17* Thickness of adjusting washers *P 5 1/16 S 5 1/16 - P 5 1/16 S 5 1/16*

Material of Crank shaft *Steel* Identification Mark on Do. *2033 N* Material of Thrust shaft *Steel* Identification Mark on Do. *2033 N*

Material of Tunnel shafts *Steel* Identification Marks on Do. *2033 N* Material of Screw shafts *Steel* Identification Marks on Do. *2033 N*

Material of Steam Pipes *Brass Iron Steel Copper* Test pressure *Brass 540 lbs. Iron 600 lbs. Steel 1400 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 *Yes*

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

*The Machinery and Boilers of this Steamer have been constructed under special survey and placed in bond in accordance with the Board's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted for the Certification + LMC 3-17 in the Register Book.*

*It is submitted that this vessel is eligible for THE RECORD. + LMC 3.17.*

The amount of Entry Fee ... £ 3 : 0 :  
Special ... £ 36 : 4 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 9.3.1917  
When received, 13.3.1917

Committee's Minute GLASGOW 13 MAR 1917.

Assigned + LMC 3.17

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



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Rpt. 5a.

Date of writing R

No. in Sur Reg. Book.

Master

Engines made

Boilers made

Registered Hor

MULTITU

(Letter for reco

Boilers

No. of Certific

safety valves to

Are they fitted

Smallest distan

Material of she

Descrip. of rive

Lap of plates

rules 103

boiler

Description of lo

plates: Material

Top 10 1/2" S. If

smallest part

Pitch of stays

Area supported

Lower back plat

Pitch of tubes

water spaces

girder at centre

Working pressur

separately

holes

If stiffened with

Working pressur

Dates of Survey while building { During work on board

GENERAL

in acc

and for

The Am

Survey Fee

Travelling Ex

Committee's

Assigned