

REPORT ON MACHINERY.

No. 14503
THU. 7-AUG. 1919

Received at London Office

Date of writing Report 29 July 1919 When handed in at Local Office 31 July 1919 Port of Greenock

No. in Survey held at Greenock Date, First Survey 3rd Feb'y, 1919. Last Survey 30 July 1919.
Reg. Book. on the Steel Steamer Beechpark (Number of Votie 66.)

Master J. Davies. Built at Greenock By whom built Greenock Dockyard & Co. Ltd. When built 1919

Engines made at Greenock By whom made John S. Kincaid & Co. Ltd. when made 1919

Boilers made at Greenock By whom made W. Denny & Co. Ltd. when made 1919

Registered Horse Power Owners The Dumbarton Shipping Co. Ltd. Port belonging to Greenock

Nom. Horse Power as per Section 28 517 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes

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

Dia. of Cylinders 27-44-73 Length of Stroke 48 Revs. per minute 70 Dia. of Screw shaft as per rule 14.8 as fitted 15.2 Material of screw shaft Mild 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

the propeller boss Yes 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 60 1/2

Dia. of Tunnel shaft as per rule 13.33 as fitted 13 1/2 Dia. of Crank shaft journals as per rule 13.99 as fitted 14.0 Dia. of Crank pin 14.0 Size of Crank webs 21.9 Dia. of thrust shaft under

bars 14.0 Dia. of screw 18.0 Pitch of Screw 18.6 No. of Blades 4 State whether moceable No Total surface 100.5 sq ft

No. of Feed pumps 2 Diameter of ditto 4 Stroke 27 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 Stroke 27 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 7.18 - 14.24 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 7000 sq ft In Holds, &c. 10 - 3 1/2 Tunnel 3 1/2

Circulating Pump separate Engine

No. of Bilge Injections 2 sizes 12 Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size 7 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

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 Both

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

How are they protected

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 Station.

MANIFOLDERS, &c.—(Letter for record S) Manufacturers of Steel In this Report attached hereto.

Total Heating Surface of Boilers 7668 Is Forced Draft fitted Yes No. and Description of Boilers Three Single Endless

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 13/3/19 No. of Certificate 14658

Can each boiler be worked separately Yes Area of fire grate in each boiler 63.5 sq ft No. and Description of Safety Valves to

each boiler 2 Area of each valve 9.62 sq in Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Least distance between boilers or uptakes and bunkers or woodwork 25 Mean dia. of boilers Length Material of shell plates

Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Percentages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell

Material of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Thickness of plates Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

No. of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Working pressures by rules Girders to Chamber tops: Material Depth and

Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules Steam dome: description of joint to shell % of strength of joint

Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Working pressure of shell by rules Crown plates Thickness How stayed

Superheater. Type Date of Approval of Plan Tested by Hydraulic Pressure to

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

W347-0033

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED? *No*

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 of lifting bolts. One set of feed pump valves. One set of bridge pump valves. One set main and one set donkey check valves. One set of escape valves opening under bolts. One set of...*

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

Robert Green Secretary Manufacturer.

Dates of Survey while building (1919). Feb. 3-5-7-10-11-13-14-18-19-20-21-24-25-26-28. Mar. 3-5-6-7-11-13-18-20-21-24-28. Apr. 1-3-4-8-10-11-15-17-18-22-24-29-30. May. 5-7-12-14-16-19-20-22-26-28. June. 2-4-6-9-11-13-17-20-23-27-30. July. 17-22-25-28-30: -
Total No. of visits *66*. Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts - Cylinders *4/6/19* Slides *13/6/19* Covers *4/6/19* Pistons *22/7/19* Rods *4/6/19*
Connecting rods *28/5/19* Crank shaft *14/5/19* Thrust shaft *14/5/19* Tunnel shafts *9/6/19* Screw shaft *29/5/19* Propeller *14/5/19*
Stern tube *19/5/19* Steam pipes tested *6/6/19* 27-30/6/19 Engine and boiler seatings *2/6/19* Engines holding down bolts *30/4/19*
Completion of pumping arrangements *28/9/19* Boilers fixed *30/6/19* Engines tried under steam *30/7/19*
Completion of fitting sea connections *2/6/19* Stern tube *29/5/19* Screw shaft and propeller *9/6/19*
Main boiler safety valves adjusted *29/7/19* Thickness of adjusting washers *3/16 5/16 - 7/16 5/16 - 7/16 5/16*
Material of Crank shaft *Steel* Identification Mark on Do. *333* Material of Thrust shaft *Steel* Identification Mark on Do. *333*
Material of Tunnel shafts *Steel* Identification Marks on Do. *333* Material of Screw shafts *Steel* Identification Marks on Do. *333*
Material of Steam Pipes *Iron* Test pressure *600 lbs*
Is an installation fitted for burning oil fuel *No* 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 *✓*
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 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 the case is subject fully submitted for the satisfaction F. D. + LMC 7-19 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC. 7.19 F.D.

Roll 7/8/19 *ARR*

Greenock

The amount of Entry Fee ... £ *3 : 0* :
Special ... £ *3.5.8* :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *1st August, 1919.*
When received, *21/8/19*

James James
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute *GLASGOW 6 AUG 1919*
Assigned *+ L.M.C. 7.19*

