

REPORT ON MACHINERY.

No. 21064

Port of Glasgow

UES. 18 AUG 1903

Received at London Office

No. in Survey held at Glasgow

Date, first Survey 18th March Last Survey 5-8-1903

Reg. Book. on the S.S. "Onid."

(Number of Visits 26)

Master Built at Ayr

By whom built Ailsa S. B. Co.

Tons } Gross
Net } When built 1903.

Engines made at Glasgow By whom made Ross & Duncan

when made 1903.

Boilers made at Glasgow By whom made Ross & Duncan

when made 1903.

Registered Horse Power Owners

Port belonging to Barnarton

Nom. Horse Power as per Section 28 65

Is Refrigerating Machinery fitted

Is Electric Light fitted

ENGINES, &c.—Description of Engines Compound

No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 16" & 34" Length of Stroke 24" Revs. per minute 116 Dia. of Screw shaft as per rule 7.12" Material of screw shafts iron

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 29 1/2"

Dia. of Tunnel shaft as per rule 6.59" Dia. of Crank shaft journals as per rule 6.9" Dia. of Crank pin 7 1/2" Size of Crank webs 4 1/2" x 10 1/2" Dia. of thrust shaft under

rollers 7 1/2" Dia. of screw 8-3" Pitch of screw 11-14 1/2" No. of blades 4 State whether moceable no Total surface 25 sq ft

No. of Feed pumps 1 Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work

No. of Bilge pumps 1 Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work

No. of Donkey Engines 2 Sizes of Pumps 4 3/4 x 3 1/2" 6 x 8" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 2-2" 1-13-2" In Holds, &c. no 2-2"

No. of bilge injections 1 sizes 2 3/4" Connected to condenser, or to circulating pump air pump Is a separate donkey suction fitted in Engine room & size 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 yes

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 the pipes carried through the bunkers bilge suction How are they protected wood casings

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock on ways Is the screw shaft tunnel watertight

Is it fitted with a watertight door worked from

BOILERS, &c.— (Letter for record 47) Total Heating Surface of Boilers 1206.5 sq ft Is forced draft fitted

Kind and Description of Boilers 1 S.B. Multitubular Working Pressure 130 lbs Tested by hydraulic pressure to 260 lbs

Date of test 26-6-03 Can each boiler be worked separately Area of fire grate in each boiler 36.45 sq ft No. and Description of safety valves to

boiler 2 Direct Spring Area of each valve 4.9 sq in Pressure to which they are adjusted 135 lbs Are they fitted with easing gear yes

Least distance between boilers or uptakes and bunkers 5'-6" Mean dia. of boilers 12'-0" Length 9'-6" Material of shell plates steel

Thickness 13/16" Range of tensile strength 27-32 Are they welded or flanged no Descrip. of riveting: cir. seams L. D. R. long. seams A. B. S. J. R.

Diameter of rivet holes in long. seams 15/16" Pitch of rivets 6" 3" Lap of plates or width of butt straps 15"

Percentages of strength of longitudinal joint rivets 84.5 Working pressure of shell by rules 135 lbs Size of manhole in shell 16" x 12"

No. of compensating ring no No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 4.5"

Thickness of plain part top 5.9 1/2" bottom 8'-14" Thickness of plates crown 2 1/2" bottom 3 1/2" Description of longitudinal joint weld No. of strengthening rings partial

Working pressure of furnace by the rules 148 lbs Combustion chamber plates: Material steel Thickness: Sides 17/32" Back 17/32" Top 17/32" Bottom 17/32"

of stays to ditto: Sides 8" x 8" Back 8" x 8" Top 7 1/2" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 131 lbs

Material of stays iron Diameter at smallest part 1.48" Area supported by each stay 64.65 sq in Working pressure by rules 134 lbs End plates in steam space:

Material steel Thickness 2.9" Pitch of stays 17 x 17" How are stays secured nuts + washers Working pressure by rules 134 lbs Material of stays steel

Area supported by each stay 289 sq in Working pressure by rules 130 lbs Material of Front plates at bottom steel

Thickness 2.3/32" Material of Lower back plate steel Thickness 5/8" Greatest pitch of stays 13" Working pressure of plate by rules 152 lbs

Diameter of tubes 3 1/2" Pitch of tubes 4 3/8" x 4 3/8" Material of tube plates steel Thickness: Front 2 3/32" Back 2 3/32" Mean pitch of stays 11.12"

across wide water spaces 14 1/2" dia. Working pressures by rules 171 + 149 lbs Girders to Chamber tops: Material iron Depth and

thickness of girder at centre 6 1/2" x 2" Length as per rule 28.25 Distance apart 8 1/2" Number and pitch of Stays in each 2-9 3/4"

Working pressure by rules 143 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked

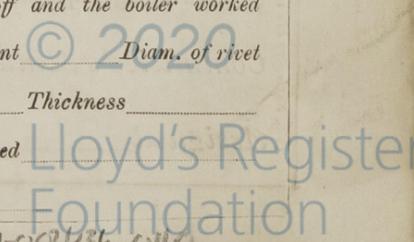
separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

strengthened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

00127-00124-010



DONKEY BOILER— No. Description

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler

Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength

Descrip. of riveting long seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays to do.

Dia. of stays. Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint

Thickness of furnace crown plates Stayed by Working pressure of shell by rules

Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— 2 Top end bolts + nuts. 2 Bottom end bolts + nuts. 1 set of coupling bolts + nuts. 2 Main bearing bolts. 1 set of Feed + Bilge pump valves. 6 boiler tubes. 6 condenser tubes. 1/2 set of firebars. an assortment of bolts, nuts, iron etc.

The foregoing is a correct description,
Ross & Hancock Manufacturer.

Dates of Survey while building

During progress of work in shops - -	} 1903: Mar 18. 24. 26. Apr 1. 6. 9. 15. 17. 23. May 5. 11. 19. 22. 26. 29. June		
		During erection on board vessel - -	} 15. 17. 23. 25. 29. 30. July 1. 6. 10. 25. Aug 5.

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

" " " donkey " " " *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The materials have been tested, & the work carried out under special survey, both materials & workmanship being of good description, on completion this machinery was securely fastened down on board, & tried under steam with satisfactory results.

In my opinion this machinery is eligible to be classed in the Register Book with record of *L.M.C. 8.03.*

It is submitted that this vessel is eligible for THE RECORD *L.M.C. 8:03*

H.H.
20.8.03

Certificate (if required) to be sent to Committee's Minute.

The amount of Entry Fee..	£ 1 :	When applied for,
Special ..	£ 9 : 15 :	17.8.03
Donkey Boiler Fee ..	£ :	<i>Not yet</i>
Travelling Expenses (if any) £	:	When received, 21.8.03

A.J. Bassett
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *Glasgow 17 AUG 1903*

Assigned *L.M.C. 8.03.*

When fee is paid

