

REPORT ON MACHINERY.

No. 10518

Port of Leith

Received at London Office MON. 7 SEP 1903

No. in Survey held at Leith Date, first Survey April 9th Last Survey Sept 3rd 1903

Book. on the Motors 250 S.S. Woodland (Number of Visits 17)

ter Built at Glasgow By whom built Glasgow & Co. Ltd. When built 1903

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Registered Horse Power Owners Shos loales Port belonging to Newcastle

Horse Power as per Section 28 38.45 Is Refrigerating Machinery fitted No Is Electric Light fitted No

INES, &c. — Description of Engines Comp. Surface Condensing No. of Cylinders 2 No. of Cranks 2

of Cylinders 14' x 29' Length of Stroke 21 Revs. per minute 120 Dia. of Screw shaft 6.42 as per rule 6.42 as fitted 6.5 Material of screw shaft Steel

screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the liner made water tight

he 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

en the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two

s are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 30"

of Tunnel shaft 6.13 as per rule 6.13 as fitted 6.14 Dia. of Crank shaft journals 6.13 Dia. of Crank pin 6 1/4 Size of Crank webs 22/20/12 Dia. of thrust shaft under

rs 6 1/4 Dia. of screw 7-8 Pitch of screw 9'-0" 5 10'-0" No. of blades 4 State whether moveable No Total surface 19 sq

of Feed pumps 1 Diameter of ditto 2 1/2 Stroke 10 1/2 Can one be overhauled while the other is at work Yes

of Bilge pumps 1 Diameter of ditto 2 1/2 Stroke 10 1/2 Can one be overhauled while the other is at work Yes

of Donkey Engines 1 Sizes of Pumps 5 1/2 x 3 1/2 x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 2 of 2 1/4 In Holds, &c. 1 of 2"

of bilge injections 1 sizes 3" Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size Yes 2 1/4

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 Yes

all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks both

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

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

pipes are carried through the bunkers None How are they protected —

all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes

were stern tube, propeller, screw shaft, and all connections examined in dry dock See Record Is the screw shaft tunnel watertight None

fitted with a watertight door — worked from —

ERS, &c. — (Letter for record —) Total Heating Surface of Boilers 654 sq Is forced draft fitted No

and Description of Boilers 1 Multitubular Single ended Working Pressure 130 lbs Tested by hydraulic pressure to 260 lbs

of test 29/7/03 Can each boiler be worked separately Yes Area of fire grate in each boiler 32 sq No. and Description of safety valves to

boiler 2 - Spring Area of each valve 4.9 sq Pressure to which they are adjusted 133 lbs Are they fitted with easing gear Yes

test distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 9'-6 3/4 Length 9'-3 1/2 Material of shell plates Steel

ness 3/4 Range of tensile strength 27/32 Are they welded or flanged No Descrip. of riveting: cir. seams 5 Rip Lap long. seams DBT riveted

eter of rivet holes in long. seams 1 1/16 Pitch of rivets 4 3/4 Lap of plates or width of butt straps 1'-0 1/2

entages of strength of longitudinal joint 77.6% Working pressure of shell by rules 145 lbs Size of manhole in shell 15" x 11"

of compensating ring McAlister No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 3'-0"

h of plain part 78 1/2 Thickness of plates 19/32 Description of longitudinal joint welded No. of strengthening rings —

ing pressure of furnace by the rules 130 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 13/16

of stays to ditto: Sides 7 1/2 Back 7 1/2 Top 7 1/2 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 150 lbs

ial of stays Steel Diameter at smallest part 1.19 Area supported by each stay 56.25 sq Working pressure by rules 181 lbs End plates in steam space:

ial Steel Thickness 13/16 Pitch of stays 15" x 15" How are stays secured DBDNW Working pressure by rules 138 lbs Material of stays Steel

er at smallest part 3.78 Area supported by each stay 225 sq Working pressure by rules 170 lbs Material of Front plates at bottom Steel

ness 13/16 Material of Lower back plate Steel Thickness 13/16 Greatest pitch of stays 7 1/2 Working pressure of plate by rules 165 lbs

eter of tubes 3" Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 13/16 Back 23/32 Mean pitch of stays 8 1/2

across wide water spaces 12" Working pressures by rules 163 lbs Girders to Chamber tops: Material Steel Depth and

ess of girder at centre 6" x 1 1/4 Length as per rule 24" Distance apart 7 1/2 Number and pitch of Stays in each 2 - 7 1/2

ing pressure by rules 149 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

tely — 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 —

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

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

002320-002329-0144

Lloyd's Register Foundation

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 piston rod bolts + nuts & connecting rods & bolts + nuts
 2 main bearing bolts + nuts 2 Eccentric strap bolts + nuts 6 shaft coupling bolts
 1 set of feed & bilge pump valves 1 set of air & live pump valves 1 main check valve 1 donkey check valve 1 set of valves for donkey pump 3. Escape valves

The foregoing is a correct description,
 Manufacturer. **P.P. S. & H. MORTON & CO.**
P.P. S. & H. Morton

Dates of Survey while building { During progress of work in shops - - } 1903 April 9 June 10 11 12 13 17 22 29 July 6 11 29 31 Aug 7 8
 { During erection on board vessel - - } 13 14 Sept 3
 Total No. of s 17

Is the approved plan of main boiler forwarded herewith Yes
 " " " donkey " " " 1

General Remarks (State quality of workmanship, opinions as to class, &c.) *The engine & boiler of this vessel have been constructed under special survey & the materials & workmanship are sound & good. The engines have been tried under steam & the safety valves of the boiler adjusted to its working pressure. The machinery is now in good & safe working condition & eligible in my opinion to have the notation of + L.M.C. 9.03*

It is submitted that this vessel is eligible for THE RECORD, + L.M.C. 9.03

Pal.
 16.9.03
Rel
 16.9.03

Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee, £ 1 - - - When applied for, 5/9/1903
 Special £ 8 - - - 14.9.03
 Donkey Boiler Fee £ : : - - - When received, 13.9.03
 Travelling Expenses (if any) £ : : - - - 19

Thos. L. Thonston
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI. 18 SEP 1903

Assigned *+ L.M.C. 9.03*

ENTRY CERTIFICATE WRITTEN.

