

REPORT ON MACHINERY.

No. 25712

Port of Glasgow

FRI. 27 SEP 1907

Received at London Office

No. in Survey held at Coatbridge N.B.

Reg. Book.

S/S "ARGON"

Date, first Survey 13th MayLast Survey 14th Aug 1907

(Number of Visits)

Master

Built at Goole

By whom built Goole Ship B. Co (No 100)

Tons Gross 226

Net 67

When built 1907.

Engines made at Coatbridge N.B.

By whom made W. V. V. Lidgerwood Esq. (No 268)

when made 1907.

Boilers made at Wallsend-on-Tyne

By whom made Wallsend Slipway Co (189th)

when made 1907.

Registered Horse Power

Owners Western S F Co Ltd

Port belonging to Swansea

Nom. Horse Power as per Section 28 70 2

Is Refrigerating Machinery fitted for cargo purposes ☒Is Electric Light fitted ☒

ENGINES, &c.—Description of Engines Triple Expansion

No. of Cylinders 3 7-35 No. of Cranks 3

Dia. of Cylinders 12 1/4" x 20" x 34" Length of Stroke 24" Revs. per minute

Dia. of Screw shaft as per rule 7-00" Material of screw shaft Iron

the 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

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 Yes

Length of stern bush 2-9"

Dia. of Tunnel shaft as per rule None Dia. of Crank shaft journals as per rule 6-55"

as fitted 6-2 1/2" Dia. of Crank pin 6 3/4" Size of Crank webs 12 1/4" x 4 1/2" x 24 3/4"

collars 6 3/4" Dia. of screw 8-6" Pitch of Screw 11-6"

No. of Blades 4 State whether moveable No Total surface 31 ft

No. of Feed pumps One Diameter of ditto 2 3/4" Stroke 12"

Can one be overhauled while the other is at work ☒

No. of Bilge pumps One Diameter of ditto 2 3/4" Stroke 12"

Can one be overhauled while the other is at work ☒

No. of Donkey Engines Two Sizes of Pumps Two 5 1/4" x 3 1/2" x 5"

No. and size of Suctions connected to both Bilge and Donkey pumps

in Engine Room Two 2"

In Holds, &c. One 2 1/2"

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump

Is a separate Donkey Suction fitted in Engine room & size Yes 2"

Are all the bilge suction pipes fitted with roses Yes 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 Yes

Are they Valves or Cocks Both Valves & Cocks.

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 above

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

What pipes are carried through the bunkers

Hold Suction

How are they protected wood casing

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.

Dates of examination of completion of fitting of Sea Connections 20. Aug 07 of Stern Tube 20/8 107

Screw shaft and Propeller 20. 8. 07

Is the Screw Shaft Tunnel watertight ☒Is it fitted with a watertight door ☒Is it worked from ☒

MANUFACTURERS, &c. (Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted No

No. and Description of Boilers 1. S. & A. L. Malt

Working Pressure 180 lbs

Tested by hydraulic pressure to 360 lbs

Date of test 13. 7. 07

No. of Certificate 7526

Can each boiler be worked separately ☒

Area of fire grate in each boiler 34. 6 sq ft

No. and Description of Safety Valves to

each boiler two direct Spring Area of each valve 2 1/2" dia

Pressure to which they are adjusted 185 lbs

Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 10"

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

Pitch of rivets Lap of plates or width of butt straps

Percentage of strength of longitudinal joint

rivets plate

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top bottom

Thickness of plates

crown bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter 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

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness 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

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Superheater or Steam chest; how connected to boiler

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

If stiffened 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

VERTICAL DONKEY BOILER—Manufacturers of Steel

No.	Description	Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Sq.
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
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
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	Plates
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by			
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:— *Two piston rod bolts + nuts, 2 connecting rod bolts + nuts, Main bearing bolts + nuts, 6 coupling bolts, One set of Feed + Bilge pump valves, a quantity of assorted bolts + nuts, & iron of various sizes.*

The foregoing is a correct description,

For W.Y.V. Lidgerwood Manufacturer. of Engines & only

Dates of Survey while building	During progress of work in shops	During erection on board vessel	Total No. of visits
	<i>1907 May 13 27 31 June 6 12 18 25 July 26 Aug 1 6 14 11</i>	<i>Nov 1907 Aug 7 19 20 20 21 22 26 27 29</i>	<i>20</i>

Is the approved plan of main boiler forwarded herewith *no*

Dates of Examination of principal parts	Cylinders	Slides	Covers	Pistons	Rods
Connecting rods	12.6.07	Crank shaft	1.8.07	Thrust shaft	1.8.07
Stern tube	6.8.07	Steam pipes tested	1.8.07	Engine and boiler seatings	20.8.07
Completion of pumping arrangements	9.9.07	Boilers fixed	26.8.07	Engines tried under steam	26.8.07
Main boiler safety valves adjusted		Thickness of adjusting washers	<i>P 5/16 5/16 S</i>		

Material of Crank shaft	<i>Steel.</i>	Identification Mark on Do.	<i>268</i>	Material of Thrust shaft	<i>Steel.</i>	Identification Mark on Do.	<i>268.</i>
Material of Tunnel shafts	<i>none</i>	Identification Marks on Do.	<i>✓</i>	Material of Screw shafts	<i>Iron.</i>	Identification Marks on Do.	<i>268.</i>
Material of Steam Pipes	<i>Copper.</i>	Test pressure	<i>360 lbs per sq. in.</i>				

General Remarks (State quality of workmanship, opinions as to class, &c. *The Engines & Boilers of this vessel have been built under Special Survey, the materials & workmanship are of good quality, & when they have been satisfactorily fitted on board & tried under steam, they will be eligible in our opinion for the notation L.M.C. 8.07.*

The machinery fitted on board tried under steam found efficient.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 9.07

J.R.K.
30.9.07

H.S.
20.9.07

The amount of Entry Fee	£	When applied for	3SER1907
Special	<i>5/6</i>	When received	<i>24/9/07</i>
Donkey Boiler Fee	<i>10/6</i>		
Travelling Expenses (if any)	£		

Leonard G. Haller

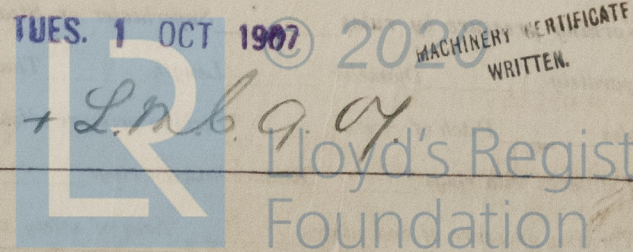
A.H. Filditch

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

Committee's Minute *Glasgow - 3 SEP 1907*

Assigned Deferral for completion *See Newcastle.*

L.B. 6



Certificate (if required) to be sent to

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