

REPORT ON MACHINERY.

No. 34142

Received at London Office

WED. JUN. 24 1914.

Date of writing Report 19 When handed in at Local Office 20.6.14 Port of Glasgow

No. in Survey held at Boatridge Date, First Survey 19.12.13 Last Survey 1.6.14
Reg. Book. on the "MELDA" (Number of Visits 13)

Master Built at Dundee By whom built Dundee SBC (265) When built 1914

Engines made at Boatridge By whom made Lidgerwood & Co (423) when made 1914

Boilers made at Glasgow By whom made D. Rowan & Co (210) when made 1914

Registered Horse Power Owners Port belonging to

Nom. Horse Power as per Section 28 81 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12 3/4" 22" 36" Length of Stroke 24 Revs. per minute Dia. of Screw shaft as per rule 7 3/4" Material of screw shaft 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 in the propeller boss

If the liner is in more than one length are the joints burned length 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 2'-9"

Dia. of Tunnel shaft as per rule 6.45 Dia. of Crank shaft journals as per rule 6.5 Dia. of Crank pin 7 Size of Crank webs 3 3/4" x 4 1/2" Dia. of thrust shaft under collars 7 Dia. of screw 9.0 Pitch of Screw 11.6 No. of Blades 4 State whether moveable No Total surface 36.8

No. of Feed pumps 2 Diameter of ditto 2 7/8" Stroke 12" Can one be overhauled while the other is at work

No. of Bilge pumps 2 Diameter of ditto 2 7/8" Stroke 12" Can one be overhauled while the other is at work

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

In Engine Room In Holds, &c.

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses 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 Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Dates of examination of completion of fitting of Sea Connections of Stern Tube Screw shaft and Propeller

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

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers 1438 Is Forced Draft fitted No. and Description of Boilers

Working Pressure 180 Tested by hydraulic pressure to Date of test No. of Certificate

Can each boiler be worked separately? Area of fire grate in each boiler 49.57 No. and Description of Safety Valves to each boiler pair direct Spring Area of each valve 4.9 Pressure to which they are adjusted Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork 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

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

Per centages of strength of longitudinal joint rivets 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 Thickness of plates crown 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 holes 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

W309-0097

Lloyd's Register Foundation

VERTICAL DONKEY BOILER— Manufacturers of Steel

Rpt. 5a.

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 Safety _____

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 _____ Plates _____

Working pressure of shell by rules _____ 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 _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Radius of do. _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
for **LIDGERWOOD LIMITED** Manufacturers **R Sneddon**

Dates of Survey while building

During progress of work in shops --	1913. Dec 19.	1914. Feb 17.	Mar 17-23-27.	Apr 7-21-28.	May 1-11-18-27.	June 1.
	During erection on board vessel ---					
	Total No. of visits 13.					

Is the approved plan of main boiler forwarded herewith _____

" " " donkey " " " _____

Dates of Examination of principal parts—Cylinders 7/4/14 Slides 7/4/14 Covers 7/4/14 Pistons 7/4/14 Rods 7/4/14

Connecting rods 27/3/14 Crank shaft 28/4/14 Thrust shaft 28/4/14 Tunnel shafts _____ Screw shaft 28/3/14 Propeller 27/3/14

Stern tube 27/3/14 Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Steel Identification Mark on Do. 28/4/14 Material of Thrust shaft Steel Identification Mark on Do. 28/4/14

Material of Tunnel shafts Iron Identification Marks on Do. _____ Material of Screw shafts Iron Identification Marks on Do. 28/3/14

Material of Steam Pipes _____ Test pressure

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

These engines & boilers have been built under special survey the materials and workmanship are of good description. They have now been forwarded to Dundee where they will be fitted on board the vessel.

GLASGOW

Certificate (if required) to be sent to _____

The amount of Entry Fee £ _____ When applied for, _____

Special £ _____ When received, _____

Donkey Boiler Fee £ _____

Travelling Expenses (if any) £ _____

A. M. Keand & **J. Davy**
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **GLASGOW 23 JUN. 1914**

FRI. AUG. 14. 1914

Assigned *Deferred for comple*



Lloyd's Register Foundation

Date of writing _____

No. of Reg. B _____

Master _____

Engine _____

Boilers _____

Register _____

MUI _____

(Letter _____)

Boiler _____

No. of safety _____

Are _____

Small _____

Material _____

Description _____

No. 1419

Warrant to _____

may be Specially _____

we _____

In _____

Horse _____

above _____

than _____

M _____

all c _____

to be _____

Boiler No. 2

This requires _____

and Foreign Shi _____

While the Com _____

understood that neit _____

any report or certi _____

society, or for any _____

To the Secretary _____

Lloyd's _____

22/6/14