

# REPORT ON MACHINERY.

No. 2920

THU. AUG. 20 1920

Port of *Meyord*

Received at London Office

No. in Survey held at *Meyord Haven* Date, first Survey *30<sup>th</sup> May* Last Survey *2<sup>nd</sup> July* 1920  
Reg. Book. on the *ST "David Ogelvie"* (Number of Visits *8*)

Master Built at *Middlesboro* By whom built *Smith Dock Co L<sup>d</sup>* Tons } Gross }  
When built *1917* Net }

Engines made at *Middlesboro* By whom made *Smith's Dock Co L<sup>d</sup>* when made *1917*

Boilers made at *Newcastle on Tyne* By whom made *Hawthorn Leslie & Co L<sup>d</sup>* when made *1917*

Registered Horse Power Owners *Jenkinson, & Jones* Port belonging to

Nom. Horse Power as per Section 28 *87* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *No*

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

Dia. of Cylinders *12 1/2 x 21 x 35* Length of Stroke *26"* Revs. per minute *110* Dia. of Screw shaft as per rule *7.56* Material of screw shaft as fitted *7 5/8"* *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 *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 *34"*

Dia. of Tunnel shaft as per rule *6.57* Dia. of Crank shaft journals as per rule *6.9* Dia. of Crank pin *7 1/8* Size of Crank webs *14 x 4 1/2* Dia. of thrust shaft under collars *7 1/8* Dia. of screw *9.6* Pitch of Screw *11 1/2* No. of Blades *4* State whether moveable *No* Total surface *35.5*  $\square$

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

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

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

In Engine Room *1" 2" forward & 1 1/2" aft, & separate bilge in Holds, &c. One from fore hold, and slushwell also separate ejector acting from all parts*

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

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 *None*

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 *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 *Forward 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 *✓* of Stern Tube *—* Screw shaft and Propeller *—*

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

OILERS, &c.—(Letter for record *S*) Manufacturers of Steel *—*

Total Heating Surface of Boilers *1619* Is Forced Draft fitted *No* No. and Description of Boilers *Single ended*

Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *5/3/17* No. of Certificate *2433*

Can each boiler be worked separately *✓* Area of fire grate in each boiler *50*  $\square$  No. and Description of Safety Valves to each boiler *The Spring loaded* Area of each valve *4.9* Pressure to which they are adjusted *182* Are they fitted with easing gear *Yes*

Smallest distance between boilers or uptakes and bunkers or woodwork *8"* Mean dia. of boilers *13.6* Length *10.6* Material of shell plates *S*

Thickness *1 3/32* Range of tensile strength *28. 32* Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *double*

long. seams *TRDSS* Diameter of rivet holes in long. seams *1 5/32* Pitch of rivets *8"* Lap of plates or width of butt straps *17*

Per centages of strength of longitudinal joint rivets *89.3* Working pressure of shell by rules *180* Size of manhole in shell *16" x 12*

Size of compensating ring *9 1/32* No. and Description of Furnaces in each boiler *3 plain* Material *S* Outside diameter *40 9/16*

Length of plain part top *8 1/2* bottom *7.6* Thickness of plates crown *25* bottom *32* Description of longitudinal joint *Welded* No. of strengthening rings *✓*

Working pressure of furnace by the rules *188* Combustion chamber plates: Material *S* Thickness: Sides *11/16* Back *21/32* Top *11/16* Bottom *7/8*

Pitch of stays to ditto: Sides *7 1/2 x 9 1/8* Back *9 1/2 x 9* Top *9 1/2 x 9 1/2* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *181*

Material of stays *S* Diameter at smallest part *2.07* Area supported by each stay *90.25* Working pressure by rules *206* End plates in steam space: Material *S*

Diameter at smallest part *6.16* Area supported by each stay *295* Working pressure by rules *215* Material of Front plates at bottom *S*

Thickness *31/32* Material of Lower back plate *S* Thickness *15/16* Greatest pitch of stays *14, 9* Working pressure of plate by rules *219*

Diameter of tubes *3 1/2* Pitch of tubes *6 x 4 1/4* Material of tube plates *S* Thickness: Front *31/32* Back *7/8* Mean pitch of stays *10"*

Pitch across wide water spaces *14"* Working pressures by rules *184* Girders to Chamber tops: Material *S* Depth and thickness of girder at centre *8 1/2 x 1 3/4* Length as per rule *32"* Distance apart *9 1/2* Number and pitch of stays in each *2 9 1/2*

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 *✓*

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.

W 266-013



**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No.	Description	When made	Where fixed
Made at	By whom made	No. of Certificate	Fire grate area
Working pressure	tested by hydraulic pressure to	Date of test	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	Area of each	Date of adjustment
Material of shell plates	Thickness	Range of tensile strength	Diap. of donkey boiler
Diap. of rivet holes	Whether punched or drilled	Pitch of rivets	Length
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	Descrip. of riveting long. seams
Diameter of furnace Top	Bottom	Length of furnace	Per centage of strength of joint
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by	Rivets
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Plates

**SPARE GEAR.** State the articles supplied:— Two top end bolts and nuts 2 bottom end bolts, and nuts 1 Set of Coupling bolts and nuts 1 Set of valves for air feed, and bilge pump. 1 Set of valves for donkey pump 3 tube, and 4 Condenser tubes assorted bolts and nuts

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

Is the approved plan of main boiler forwarded herewith

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods

Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube 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 2-7-20 Thickness of adjusting washers P 1/4 S 5/16

Material of Crank shaft Iron Identification Mark on Do. Material of Thrust shaft Iron Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Iron Identification Marks on Do.

Material of Steam Pipes S, D, C Test pressure

**General Remarks** (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under British Corporation Survey to plan, and specification mutually approved by this Society and B.C. The workmanship throughout appears to be good, and in my opinion is eligible to have record of L.M.C. 7. 20

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

The amount of Entry Fee... £ 10 : 10 : 0

Special ... £

Donkey Boiler Fee ... £

Travelling Expenses (if any) ... £

When applied for, 31 Aug 1920

When received, Yes. 1920

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

Committee's Minute TUE AUG 31 1920

Assigned L.M.C. 7. 20

