

Rpt. 4.

all  
SUNDERLAND RPT. NO. 27754  
**REPORT ON MACHINERY.**

No. 10456.

Received at London Office

THU. 5 FEB. 1920

Date of writing Report 15<sup>th</sup> Nov. 1919 When handed in at Local Office 15<sup>th</sup> Nov. 1919 Port of Southampton  
No. in Survey held at Southampton Date, First Survey 5<sup>th</sup> Sept Last Survey 14<sup>th</sup> Nov. 1919  
Reg. Book. on the S.S. "Afon Llawr" (Number of Visits 5)  
Master Built at Southampton By whom built Messrs. Bibbles Ltd. Tons Gross Net  
Engines made at By whom made when made  
Boilers made at By whom made when made  
Registered Horse Power Owners Port belonging to  
Nom. Horse Power as per Section 28 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

**ENGINES, &c.—Description of Engines**

No. of Cylinders No. of Cranks

Dia. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule as fitted Material of screw shaft  
Is the screw shaft fitted with a continuous liner the whole length of the stern tube 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 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  
Dia. of Tunnel shaft as per rule as fitted Dia. of Crank shaft journals as per rule as fitted Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under  
collars Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface  
No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work  
No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work  
No. of Donkey Engines Two Sizes of Pumps 6" x 7" x 8" 4" 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 / sizes 4" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size Yes, 3"  
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 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 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  
Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door worked from

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

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers No. of Certificate  
Working Pressure Tested by hydraulic pressure to Date of test No. and Description of Safety Valves to  
Can each boiler be worked separately Area of fire grate in each boiler Are they fitted with easing gear  
each boiler Area of each valve Pressure to which they are adjusted Material of shell plates  
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Descrip. of riveting: cir. seams  
Thickness Range of tensile strength Are the shell plates welded or flanged Lap of plates or width of butt straps  
long. seams Diameter of rivet holes in long. seams Pitch of rivets Size of manhole in shell  
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Material Outside diameter  
Size of compensating ring No. and Description of Furnaces in each boiler No. of strengthening rings  
Length of plain part top Thickness of plates crown Description of longitudinal joint bottom 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 End plates in steam space:  
Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays  
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom  
Area at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules  
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 Steam dome: description of joint to shell % of strength of joint  
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed  
SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to  
Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

W1-0038



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

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

5.10.19 4.14  
9 10 11

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  
Completion of fitting sea connections 19-9-19 Stern tube Screw shaft and propeller  
Main boiler safety valves adjusted Thickness of adjusting washers  
Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.  
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.  
Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel

Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case

If so, state name of vessel

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

Donkey pumps and suction and delivery pipes have been efficiently fitted in place on board, material & workmanship being sound & good.

This vessel is to be towed to Amsterdam to have the main engines, shafting, stern tube and boilers etc. fitted on board.

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 ... £ : : When applied for,  
Special ... £ : : 19  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ : : 19

Gas Marshall

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 16 MAR. 1920

Assigned

See old file no 27754



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Foundation