

## REPORT ON MACHINERY.

No. 11999.

Received at London Office

THU. 11. OCT. 1917

Date of writing Report 10.10.1917 When handed in at Local Office 10.10.1917 Port of Aberdeen  
No. in Survey held at Aberdeen Date, First Survey 23.1.14 Last Survey 10.9.1914  
Reg. Book. on the S.S. Wyndhurst (Number of Visits 25) Tons Gross 540.1 Net 252.8  
Master Thomas Park Built at Aberdeen By whom built John Lewis & Son Ltd. No. 52. When built 1914  
Engines made at Aberdeen By whom made Jas. Abernethy & Co. Ltd. No. 906 when made 1914  
Boilers made at Glasgow By whom made David Rowan & Co. No. 251 when made 1914  
Registered Horse Power 96 Owners Blewett's Western Valleys Anthracite Collieries Ltd. Port belonging to Swansea  
Nom. Horse Power as per Section 28 96 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 13 1/4", 23", 34" Length of Stroke 27" Revs. per minute 105 Dia. of Screw shaft as per rule 4 1/2" as fitted 4 1/2" Material of screw shaft Scrap 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 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 no space If two  
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 2' 11"  
Dia. of Tunnel shaft as per rule 6 1/2" as fitted 6 1/2" Dia. of Crank shaft journals as per rule 6 1/2" as fitted 6 1/2" Dia. of Crank pin 1/2" Size of Crank webs 10 1/2" x 4 1/2" Dia. of thrust shaft under  
collars 1/2" Dia. of screw 10' 0" Pitch of Screw 11' 6" No. of Blades 4 State whether moveable no Total surface 34' 4"  
No. of Feed pumps 2 Diameter of ditto 2 3/4" Stroke 13 1/2" Can one be overhauled while the other is at work yes  
No. of Bilge pumps 2 Diameter of ditto 2 3/4" Stroke 13 1/2" Can one be overhauled while the other is at work yes  
No. of Donkey Engines two Sizes of Pumps Feed 5 1/2" x 3 1/2" x 6" duplex No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room two of 2 1/2" Boiler room one of 2" In Holds, &c. One each wing 2" dia. Lift peak one of 2"  
No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size yes  
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 valves and 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 Suctions from Hold & Ballast Tanks How are they protected Strong 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  
Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record (a)) Manufacturers of Steel  
Total Heating Surface of Boilers 1741 1/2 Is Forced Draft fitted no No. and Description of Boilers One cyl. mult. single ended  
Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 8.6.14 No. of Certificate 13813  
Can each boiler be worked separately Area of fire grate in each boiler 53 3/4 No. and Description of Safety Valves to  
each boiler 2: direct spring Area of each valve 5.94 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 No side bunkers Mean dia. of boilers 13' 9" Length 10' 6" 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  
bottom Thickness of plates bottom Back Top Bottom  
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Working pressure by rules  
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  
Tested by Hydraulic Pressure to

SUPERHEATER. Type Date of Approval of Plan Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
Date of Test Pressure to which each is adjusted Is Easing Gear fitted  
Diameter of Safety Valve



IS A DONKEY BOILER FITTED? *no.*

If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— *Two top, and 2 bottom end bolts & nuts; 2 main bearing and one set, coupling bolts & nuts; one set each, die, circulating, feed & bilge pump valves; 1 each, main & donkey check valves; bolts & nuts assorted, and iron of various sizes.*

The foregoing is a correct description,

JAMES ABERNETHY & COMPANY LIMITED

Manufacturers of Main Engines.

Dates of Survey while building { During progress of work in shops - - *1914. Jan. 23, 29 - Feb. 1, 24 - March 4 - 26 - April 3, 20 - May 9, 15, 28 - June 28 -*  
During erection on board vessel - - - *July 2, 6, 10, 11, 13, 30 - Aug 2, 20, 31 - Sept. 3, 6, 8, 10*  
Total No. of visits *25* Is the approved plan of main boiler forwarded herewith *✓*

Dates of Examination of principal parts—Cylinders *29 24 2 3 20* Slides *26 3 9* Covers *26 3 28* Pistons *26 3 20 9* Rods *1 2 3 20 9*

Connecting rods *1 2 3 20 9* Crank shaft *3.4.14* Thrust shaft *3.4.14* Tunnel shafts *none* Screw shaft *28.6.14* Propeller *28.6.14*

Stern tube *28 28* Steam pipes tested *8.9.14* Engine and boiler seatings *5.4.14* Engines holding down bolts *11.12.30*

Completion of pumping arrangements *30.4.14* Boilers fixed *6.9.14* Engines tried under steam *10.9.14*

Completion of fitting sea connections *2.4.14* Stern tube *6.4.14* Screw shaft and propeller *6.4.14*

Main boiler safety valves adjusted *10.9.14* Thickness of adjusting washers *Port 13" - Starboard 12" full*

Material of Crank shaft *I & S* Identification Mark on Do. *645.M (D)* Material of Thrust shaft *S* Identification Mark on Do. *4413 (LTH)*

Material of Tunnel shafts *none* Identification Marks on Do. *✓* Material of Screw shafts *I* Identification Marks on Do. *4413 (LTH)*

Material of Steam Pipes *Copper 3 1/2" bore No. 6 T.W. 9* Test pressure *360 lbs per square inch*

Is an installation fitted for burning oil fuel *no* 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 *no* If so, state name of vessel *✓*

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

*These Engines together with the Boiler. (Gls. 4 & 6. Rept No 36959) have been built under special survey and in accordance with the Secretary's Letters and the provisions of the Rules. The materials and workmanship are good. They have now been properly fitted on board the vessel and tried under steam with satisfactory results, and are now in good order, and in my opinion entitled to the record + L.M.C. 9.14 in the Register Book.*

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 9.17.

The amount of Entry Fee ... £ *1* : : When applied for,  
Survey of Engines & Fitting Special *on 11/10/17* £ *9* : *12* :  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ : : *8.11.1917*

Committee's Minute *FRI OCT 19 1917.*

Assigned *+ L.M.C. 9.17*

*Ridley Howell*  
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation

Certificate (if required) to be sent to Aberdeen Office.

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

Date of writing  
No. in Sur  
Reg. Book.  
on t  
Master *Y. C.*  
Engines made  
Boilers made  
Registered H  
MULTIT  
(Letter for r  
Boilers *B.*  
No. of Certi  
safety valves  
Are they fitt  
Smallest dis  
Material of  
Descrip. of  
Lap of pla  
rules *18*  
boiler *3*  
Description  
plates: M  
Top *9 1/2*  
smallest p  
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