

REPORT ON MACHINERY.

Port of Aberdeen

FRI. 17 OCT 1902

Received at London Office

Survey held at Aberdeen

Date, first Survey Mar. 25th Last Survey Oct. 1st 1902

(Number of Visits 28)

on the S. S. Alastair

Tons { Gross 365.54
Net 156.88
When built 1902

J. Williams Built at Aberdeen By whom built J. Duthie Sons & Co. Ltd. When built 1902

Made at Aberdeen By whom made Clyne Mitchell & Co. Ltd. when made 1902

Made at S. Shields By whom made J. T. Eltringham & Co. when made 1902

Indicated Horse Power 71 Owners Alex. Gray & Adam Maitland. Port belonging to Aberdeen

Indicated Power as per Section 28 84 Is Refrigerating Machinery fitted no Is Electric Light fitted no

Engines, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
Cylinders 13 1/2 22 1/2 37 Length of Stroke 24 Revs. per minute 100 Dia. of Screw shaft as per rule 8.03 as fitted 8 3/8 Lgth. of stern bush 2' 10"
Screw shaft as per rule 6.7 as fitted 7 Dia. of Crank shaft journals as per rule 7.04 as fitted 7 1/4 Dia. of Crank pin 7 1/4 Size of Crank webs 13 1/4 x 5 1/2 Dia. of thrust shaft under 7 1/4
Dia. of screw 9.6 Pitch of screw 13.6 No. of blades 4 State whether moveable no Total surface 35 sq. ft.
Condensing pumps One Diameter of ditto 2 1/4 Stroke 15 Can one be overhauled while the other is at work
Large pumps One Diameter of ditto 2 1/4 Stroke 15 Can one be overhauled while the other is at work
Donkey Engines Two Sizes of Pumps 6 x 6 x 6 3 inch Suction No. and size of Suctions connected to both Bilge and Donkey pumps 4 1/2 x 3 x 5
Engine Room Two - 2 In Holds, &c. Three - 2

Is there a separate donkey suction fitted in Engine room & size yes 1-2"
Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible
Are the valves or cocks both
Are the discharge pipes above or below the deep water line above
Are the blow off cocks fitted with a spigot and brass covering plate yes
How are they protected
Are the 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 the screw shaft tunnel watertight before launch.
Is the screw shaft tunnel watertight with a watertight door none worked from

Engines, &c.— (Letter for record) Total Heating Surface of Boilers Is forced draft fitted
Description of Boilers Working Pressure Tested by hydraulic pressure to
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of safety valves to
Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
Range of tensile strength Are they welded or flanged Descrip. of riveting: cir. seams long. seams
Pitch of rivets Lap of plates or width of butt straps
Working pressure of shell by rules Size of manhole in shell
No. and Description of Furnaces in each boiler Material Outside diameter
Thickness of plates Description of longitudinal joint No. of strengthening rings
Combustion chamber plates: Material Thickness: Sides Back Top Bottom
If stays are fitted with nuts or riveted heads Working pressure by rules
Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
Area supported by each stay Working pressure by rules Material of Front plates at bottom
Thickness Greatest pitch of stays Working pressure of plate by rules
Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Working pressures by rules Girders to Chamber tops: Material Depth and
Length as per rule Distance apart Number and pitch of Stays in each
Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
Distance between rings Working pressure by rules End plates: Thickness How stayed
Area of safety valves to superheater Are they fitted with easing gear



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Lloyd's Register Foundation

W974-2177

DONKEY BOILER— No. Description

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area 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

enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of tens

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 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 Thickness of furnace crown plates Stayed by Working pressure of shell by rules

Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— Two piston rod bolts & nuts, Two connecting rod bolts & nuts, Two main bearings, and one set of coupling bolts, the set each of air, circulating, feed and bilge pump valves, Bolts and nuts assorted, and iron of various sizes.

The foregoing is a correct description,
Oliver Mitchell & Co. Ltd. Manufacturers of Main Engines.

Dates	During progress of work in shops—	Mar 25 27	Apr 5 th	May 1 6 15	June 2 5 26	July 11 14 17 23
of Survey while building	During erection on board vessel—	Aug 6 18 20 21 25 29	Sept 14 3 4 5 27 29 30	Oct 1		
	Total No. of visits	28				

Is the approved plan of main boiler forwarded herewith ☒

" " " donkey " " " ☒

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

Material of screw shaft Iron Is 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 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 ☒

non-corrosive ☒ If two liners are fitted, is the shaft lapped or protected between the liners painted & served

These engines have been built under Special Survey in accordance with the requirements of the Rules. The materials and workmanship are good. When completed, they, together with the Boiler (No. 4396) were properly fitted on board and tried under steam with satisfactory results, which in my opinion entitles them to the notation **L.M.C. 10,02** in the Register Book.

It is submitted that this vessel is eligible for THE RECORD **L M C 10,02**

17.10.02
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The amount of Entry Fee..	£ 1 : 0 :	When applied for,	16/10/1902
Special	£ 12 : 12 :	When received,	20.10.02
Donkey Boiler Fee	£ 4 : 16 :		
Travelling Expenses (if any)	£ 4 : 16 :		

Ernest Savage
Engineer-Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute
Assigned
TUES. 21 OCT 1902
TUES. 4 NOV 1902
TUES. 27 JAN 1903
Lloyd's Register Foundation
MACHINERY CERTIFICATE WRITTEN.