

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

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

Made at Aberdeen By whom made Clyne Mitchell & Co. L^{td} when made 1902

Made at S. Shields By whom made J. J. 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 8.03 ✓
as per rule 8.03 ✓ as fitted 8.03 ✓ Lgth. of stern bush 2'10" ✓

Screw shaft 7 Dia. of Crank shaft journals 7.04 ✓ as per rule 7.04 ✓ as fitted 7.04 ✓ 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 ✓

Donkey 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 Langye Duplex 6 x 6 x 6 Barrett 4 1/2 x 3 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Two - 2 In Holds, &c. Three - 2

Water injections 1 sizes 3" Connected to condenser, or to circulating pump yes Is a separate donkey suction fitted in Engine room & size yes 1-2"

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 ✓

Connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both

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

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

How are they protected none How are they protected ✓

Pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times yes

Bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yes

Before launch. Is the screw shaft tunnel watertight none

Is the screw shaft tunnel watertight none worked from ✓

Boilers, &c.— (Letter for record see report) Total Heating Surface of Boilers see report Is forced draft fitted no

Description of Boilers see report Working Pressure see report Tested by hydraulic pressure to see report

Can each boiler be worked separately see report Area of fire grate in each boiler see report No. and Description of safety valves to see report

Area of each valve see report Pressure to which they are adjusted see report Are they fitted with easing gear see report

Distance between boilers or uptakes and bunkers or woodwork see report Mean dia. of boilers see report Length see report Material of shell plates see report

Range of tensile strength see report Are they welded or flanged see report Descrip. of riveting: cir. seams see report long. seams see report

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

Test of strength of longitudinal joint see report Working pressure of shell by rules see report Size of manhole in shell see report

Compensating ring see report No. and Description of Furnaces in each boiler see report Material see report Outside diameter see report

plain part see report Thickness of plates see report Description of longitudinal joint see report No. of strengthening rings see report

Pressure of furnace by the rules see report Combustion chamber plates: Material see report Thickness: Sides see report Back see report Top see report Bottom see report

Stays to ditto: Sides see report Back see report Top see report If stays are fitted with nuts or riveted heads see report Working pressure by rules see report

of stays see report Diameter at smallest part see report Area supported by each stay see report Working pressure by rules see report End plates in steam space: see report

Thickness see report Pitch of stays see report How are stays secured see report Working pressure by rules see report Material of stays see report

at smallest part see report Area supported by each stay see report Working pressure by rules see report Material of Front plates at bottom see report

Material of Lower back plate see report Thickness see report Greatest pitch of stays see report Working pressure of plate by rules see report

of tubes see report Pitch of tubes see report Material of tube plates see report Thickness: Front see report Back see report Mean pitch of stays see report

cross wide water spaces see report Working pressures by rules see report Girders to Chamber tops: Material see report Depth and see report

of girder at centre see report Length as per rule see report Distance apart see report Number and pitch of Stays in each see report

pressure by rules see report Superheater or Steam chest; how connected to boiler see report Can the superheater be shut off and the boiler worked see report

Diameter see report Length see report Thickness of shell plates see report Material see report Description of longitudinal joint see report Diam. of rivet see report

Pitch of rivets see report Working pressure of shell by rules see report Diameter of flue see report Material of flue plates see report Thickness see report

with rings see report Distance between rings see report Working pressure by rules see report End plates: Thickness see report How stayed see report

pressure of end plates see report Area of safety valves to superheater see report Are they fitted with easing gear see report



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 tensile strength _____

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 _____ 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 gins made at _____

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 pistons 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, a row of various sizes.

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

Dates of Survey while building	During progress of work in shops—	Mar. 25-27	Apr. 5 th	May. 1-6-15	June 2-5-26	July 11-14-17-23-24
	During erection on board vessel—	Aug. 6-18-20-21-25-29	Sept. 1-4-5-27-29-30	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 (Newcastle) 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

[Signature]
17.10.02

The amount of Entry Fee..	£ 1 : 0 :	When applied for,
Special	£ 12 : 12 :	16/10/1902
Donkey Boiler Fee	£ 4 : 16 :	When received,
Travelling Expenses (if any) £	£ 4 : 16 :	20.10.1902

[Signature]
Ernest Cluaj
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

+ L M C 10,02

Abraham Office

Certificate (if required) to be sent to

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

