Hull 165 47
Mdb 4001-

Rpt. 4.

REPORT ON MACHINERY. No. 66,800.

FRI. 3 FEB 1905

Port of London

Received at London Office 17.11. 1904

No. in Reg. Book. 62 Suff. Survey held at Yarmouth Date, first Survey May 26 Last Survey Nov 7 1904 Trial Jan 11/05

(Number of Visits 8+11=19.)

on the Engines for S.S Argosy. Tons Gross 406 Net 168

Master Built at Hessle, near Hull By whom built J. Dobson & Co When built 1905.

Engines made at Yarmouth By whom made Crabtree & Co when made 1904

Boilers made at Stockton By whom made Riley Bros Co when made 1904

Registered Horse Power Owners Argosy S. S. Co. Ltd Port belonging to London

Nom. Horse Power as per Section 28 73.5 Is Refrigerating Machinery fitted ✓ Is Electric Light fitted ✓

ENGINES, &c.—Description of Engines Triple, Inverted Surface Condensing No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12½", 21" & 34" Length of Stroke 24" Revs. per minute 105 Dia. of Screw shaft as per rule 7.6 as fitted 7¾ Material of screw shaft Steel

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 no 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 36"

Dia. of Tunnel shaft as per rule 6.37 ✓ as fitted none Dia. of Crank shaft journals as per rule 6.69 ✓ as fitted 7" Dia. of Crank pin 7" ✓ Size of Crank webs 5"×10" Dia. of thrust shaft under collars 7" ✓ Dia. of screw 10ft" Pitch of screw 11'-0" No. of blades 4 State whether moveable no Total surface 27 sq ft

No. of Feed pumps one Diameter of ditto 2½" Stroke 12" Can one be overhauled while the other is at work ✓

No. of Bilge pumps one Diameter of ditto 2½" Stroke 12" Can one be overhauled while the other is at work ✓

No. of Donkey Engines Two Sizes of Pumps 4½"×3"×4" Duplex 6"×5¾"×6" " No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room One 2½" In Holds, &c. One 2½"

2½" Ejector suction from Engine Room bilge & discharge overboard.

No. of bilge injections 1 sizes 3½" Connected to condenser, or to circulating pump Pump Is a separate donkey suction fitted in Engine room & size 2½" Ejector

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 Fore peak tank & hold Suctions 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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock 2/1/05 Is the screw shaft tunnel watertight None

Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.— (Letter for record) Total Heating Surface of Boilers 1280 sq ft Is forced draft fitted no

No. and Description of Boilers Working Pressure 180 lbs Tested by hydraulic pressure to

Date of test Can each boiler be worked separately Area of fire grate in each boiler No. and Description of safety valves to each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates

Thickness Range of tensile strength Are they 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 plate 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 bottom Thickness of plates crown bottom Description of longitudinal joint 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

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

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

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

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 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

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If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?

[2000—5-03—Copyable Ink.]

W1375-0139

DONKEY BOILER— No. ____ Description See attached Report from Glasgow Surveyor

Made at ____ By whom made ____ When made ____ Where fixed Stokehold

Working pressure ____ tested by hydraulic pressure to ____ No. of Certificate ____ Fire grate area ____ Description of safety valves direct spring

No. of safety valves 2 Area of each 3·14 Pressure to which they are adjusted 80 lbs If fitted with easing gear yes If steam from main boilers can enter the donkey boiler no Dia. of donkey boiler ____ Length ____ Material of shell plates ____ Thickness ____ Range of tensile 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 ____ Plates ____ 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 top-end & two bottom-end connecting rod bolts & nuts. Two main bearing bolts & nuts. One set of coupling bolts & nuts. One set of feed & bilge pump valves. Assorted bolts & nuts &c.

The foregoing is a correct description,

CRABTREE & CO., LTD.

Manufacturer. W. F. Crabtree

MANAGING DIRECTOR

Dates of Survey while building — During progress of work in shops- - ____ ; During erection on board vessel - - Hull: 1904 Nov 8. 24. 29. Dec 8. 16. 28. 30, 1905: Jan 2. 4. 11 = 11.

Total No. of visits ____ Is the approved plan of main boiler forwarded herewith ____

" " " donkey " " " ____

General Remarks (State quality of workmanship, opinions as to class, &c. These engines have been constructed under special survey & in accordance with the rules, the material & workmanship is good.
These engines have been forwarded to Hull for fitting on board the vessel.

The Engines and Boilers of this vessel have now been fitted and secured on board in accordance with the Rules. They are now in good working condition and in my opinion eligible to have the notation of +LMC 1.05 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD ✠ L.M.C. 1.05.

J.M.S. 3.2.05

J.G.S. 3.2.05

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 ..	£	1 : 0 : 0	When applied for,
Special ½ Low ½ Hull	£	7 : 16 : 0	17. 11. 1904
Donkey Boiler Fee	£	: :	When received,
Travelling Expenses (if any)	£	3 : 3 : 1	20. 3. 1905

TUES. 7 FEB 1905

Committee's Minute ____

Assigned +LMC 1.05

MACHINERY CERTIFICATE WRITTEN.

Frank L. Stanger Jr. Ker

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