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REPORT ON MACHINERY.

3477

Port of *Falmouth*

Received at London Office *NO. 8 AFL 1891*

3477
in Survey held at
on the

Falmouth

Date, first Survey *6th September 1891* Last Survey *2nd March 1891*

(Number of Visits *44*) Tons

S. S. Hercules *Iron Coe & Co*

Built at *Falmouth* By whom built *Iron Coe & Co* When built *1891*

es made at *Falmouth* By whom made *Iron Coe & Co* when made *1891*

es made at *Falmouth* By whom made *Iron Coe & Co* when made *1891*

er Horse Power *72* Owners *The Companhia Insuradora do Brasil, de Rio de Janeiro & Falmouth Limited* Port belonging to *Oporto*

INES, &c.—
ption of Engines *Triple Expansion inverted direct acting* Intermediate
der of Cylinders *14", 22", 36"* Length of Stroke *22"* No. of Rev. per minute *135* Point of Cut off, High Pressure *1/4* Low Pressure *1/6*
eter of Screw shaft *6 1/2* Diam. of Tunnel shaft *6 1/4* Diam. of Crank shaft journals *6 1/2* Diam. of Crank pin *6 1/2* size of Crank webs *13 x 4 1/4*
eter of screw *4-9"* Pitch of screw *11-4 1/2* No. of blades *4* state whether moreable *yes* total surface *20 sq*
of Feed pumps *one* diameter of ditto *2"* Stroke *9"* Can one be overhauled while the other is at work *✓*
of Bilge pumps *one* diameter of ditto *3"* Stroke *9"* Can one be overhauled while the other is at work *✓*
re do they pump from *Fore and after holds, Engine Room and Stokehold*
of Donkey Engines *1/2* Size of Pumps *3 1/2* *Donkey Engine from Portwell & Co*
diameter from, *Sea, Fore and after holds, Engine Room and Stokehold, delivery to Condenser, Sea and Deck*
all the bilge suction pipes fitted with roses *yes* Are the roses always accessible *yes* Are the sluices on Engine room bulkheads always accessible *yes*
of bilge injections *one* and sizes *4"* Are they connected to condenser, or to circulating pump *Pump*
are the pumps worked *From lower off bulkhead of Forward Engine*
all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *Valves and Cocks*
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*
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*
all pipes are carried through the bunkers *Suction for Stokehold & Bottom Pipe for Water* are they protected *Wood casing*
all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *yes*
the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges *yes*
ten were stern tube, propeller, screw shaft, and all connections examined in dry dock *On beach 2-3-91*
the screw shaft tunnel watertight *none* and fitted with a sluice door *✓* worked from *✓*

ILERS, &c.—
umber of Boilers *one* Description *Return Tube* Whether Steel or Iron *Steel*
orking Pressure *150 lbs* Tested by hydraulic pressure to *300 lbs* Date of test *28-11-90*
escription of superheating apparatus or steam chest *None fitted* Heating Surface *1251 sq*
each boiler be worked separately *✓* Can the superheater be shut off and the boiler worked separately *✓*
of square feet of fire grate surface in each boiler *34.2* Description of safety valves *Spring loaded* No. to each boiler *Two*
ea of each valve *4.908* Are they fitted with easing gear *yes* No. of safety valves to superheater *✓* area of each valve *✓*
e they fitted with easing gear *✓* Smallest distance between boilers and bunkers or woodwork *6"* Diameter of boilers *11-6"*
length of boilers *10-0"* description of riveting of shell long. seams *double butt* circum. seams *Lap butt zigzag* Thickness of shell plates *2/32*
iameter of rivet holes *1 1/8 & 3/32* whether punched or drilled *drilled* pitch of rivets *3 1/4 & 4"* Lap of plating *5 1/4"*
ercentage of strength of longitudinal joint *84.95* working pressure of shell by rules *155* size of manholes in shell *15 x 11*
e of compensating rings *one between furnaces at bottom 3 last rings 1/4", one in them* No. of Furnaces in each boiler *Two*
tside diameter *3-4"* length, top *4-0"* bottom *9-0"* thickness of plates *7/32* description of joint *welded* if rings are fitted *yes*
reatest length between rings *23"* working pressure of furnace by the rules *188* combustion chamber plating, thickness, sides *9/16* back *9/16* top *9/16*
itch of stays to ditto, sides *7 1/2 x 5 1/4* back *7 1/4 x 8* top *7 x 8* If stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by
rules *15 1/2* Diameter of stays at smallest part *1.372* working pressure of ditto by rules *210 1/2* end plates in steam space, thickness *1/4 & 1/4* doubling *1 1/2*
itch of stays to ditto *16 x 14"* how stays are secured *double Nuts* working pressure by rules *180 lbs* diameter of stays at
smallest part *2.34* working pressure by rules *172* Front plates at bottom, thickness *5/8* Back plates, thickness *2/32*
reatest pitch of stays *8"* working pressure by rules *172* Diameter of tubes *3 1/2* pitch of tubes *4 3/4* thickness of tube
plates, front *13/16* back *3/4* how stayed *Loose & riveted* pitch of stays *9 1/2* width of water spaces *1 1/4*
iameter of Superheater or Steam chest *✓* length *✓* thickness of plates *✓* description of longitudinal joint *✓* diam. of rivet holes *✓*
itch of rivets *✓* working pressure of shell by rules *✓* diameter of flue *✓* thickness of plates *✓* If stiffened with rings *✓*
Distance between rings *✓* working pressure by rules *✓* end plates of superheater, or steam chest; thickness *✓* how stayed *✓*
Superheater or steam chest; how connected to boiler *✓*

Description of Furnaces Plain Annulars Fitted with Adhesive Rings

FAL 35-0172

DONKEY BOILER—

Description

There is no Donkey Boiler fitted

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 ☒ if fitted with easing gear ☒ if steam from main boilers can enter the donkey boiler ☒

diameter of donkey boiler ☒ length ☒ description of riveting ☒

Thickness of shell plates ☒ diameter of rivet holes ☒ whether punched or drilled ☒ pitch of rivets ☒ lap of plating ☒

per centage of strength of joint ☒ thickness of crown plates ☒ stayed by ☒

Diameter of furnace, top ☒ bottom ☒ length of furnace ☒ thickness of 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 plates ☒ thickness of water tubes ☒

SPARE GEAR.

State the articles supplied:—

Two Connecting Rod top end Bolts and Nuts, Two Connecting Rod bottom end Bolts and Nuts, Two Main Bearing Bolts, One set of Coupling Bolts, One set of Spare Valve and Nuts, Iron of various sizes, One Safety Valve Spring, Six Condenser Tubes, Six Boiler Tubes, One set of Lignum-vitae strips for Stem Bush, Two Propeller Blades, Cox & Co. Manufacturers.

General Remarks

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

The Machinery has been made fitted and built under Special Survey and has been under our inspection from Commencement to its completion. We have every reason to believe the Materials used are of the best quality. The Workmanship is good throughout. The Feed and Steam Pipes are made of solid drawn Copper and have been tested by us to 300 lbs \square showing no faults. The Boiler has been constructed under special Survey and the Materials and Workmanship are good being tested to 300 lbs \square were found perfectly tight and satisfactory. The Safety Valves have been set to lift at $150 + 5 = 155$ lbs per \square lifting freely with no apparent accumulation. At the Trial Trip the Engines Worked well and efficiently with no signs of heated bearings, I.H.P. 495, Steam 150 lbs, Vac 27, Rev 138, Sped 11.5 knots. Every thing being fitted in accordance with the Rules and instructions we are of opinion that the Machinery is fit for classification in the Society's Register and beg to recommend for the Committee's approval that a Machinery Certificate be granted and the notation of +LMC 3-91 made in the Register Book.

The amount of Entry Fee £ 1 : 0 : 0 received by me,

Special

Donkey Boiler Fee

Certificate (if required)

To be sent as per margin

(Travelling Expenses, if any)

Committee's Minute

TUES. 7 APR 1891

+ L M C 3/91

L. M. B. Dyer & R. H. Coope
Engineer Surveyors to Lloyd's Register of British & Foreign ShippingLloyd's Register
Foundation