

REPORT ON MACHINERY.

WED. MAR. 5-1913

No. 75218

Received at London Office

11th Dec 1912

Date of writing Report 19 _____ When handed in at Local Office 19 _____ Port of London

No. in Survey held at Newbury Date, First Survey 12th Sept Last Survey 15th Nov 1911

Reg. Book. on the Engines No. 2210 for S.P. B.A.N.W. No 15 (Number of Visits 4)

Master _____ Built at Sudbrook By whom built C.N. Walker & Co Tons { Gross 449.35
Net 232.68

Engines made at Newbury By whom made Plenty & Son L^d when made 1912

Boilers made at Stockton By whom made The Sudron & Co L^d when made 1912

Registered Horse Power _____ Owners C.H. Walker & Co Port belonging to Buenos Aires.

Nom. Horse Power as per Section 28 52 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Cup direct, surface condensing No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 15" - 30" Length of Stroke 20" Revs. per minute 150 Dia. of Screw shaft as per rule 6.31" 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 ✓ 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 and non-corrosive ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 2'-4"

Dia. of Tunnel shaft as per rule 5.9" Dia. of Crank shaft journals as per rule 6.195" Dia. of Crank pin 6 1/4" Size of Crank webs 1 1/4" x 4" Dia. of thrust shaft under collars 6 1/4" Dia. of screw 7'-0" Pitch of Screw 8'-6" No. of Blades 4 State whether moveable no Total surface 17.6 sq ft

No. of Feed pumps one Diameter of ditto 2 1/2" Stroke 9" Can one be overhauled while the other is at work ✓

No. of Bilge pumps one Diameter of ditto 2 1/2" Stroke 9" Can one be overhauled while the other is at work ✓

No. of Donkey Engines 2 Sizes of Pumps 7 1/2 + 5 3/4 x 6; 4 1/2 + 2 3/4 x 4 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 - 2" In Holds, &c. 2 - 2"

No. of Bilge Injections one sizes 3" Connected to condenser or to circulating pump Is a separate Donkey Suction fitted in Engine room & size yes, 2"

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 yes

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 yes

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 none How are they protected ✓

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

Dates of examination of completion of fitting of Sea Connections Jan 10 of Stern Tube Jan 10 Screw shaft and Propeller Jan 10

Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel _____

Total Heating Surface of Boilers 1054 sq ft Forced Draft fitted _____ No. and Description of Boilers _____

Working Pressure 125 lbs Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____

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 1'-3" Mean dia. of boilers _____ Length _____ 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 _____ 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 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 Front plates at bottom _____

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 _____



VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with casing gear _____ If steam from main boilers can enter the donkey boiler _____ 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 _____

Working pressure of shell by rules _____ 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 _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Radius of do. _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dues of survey _____

SPARE GEAR. State the articles supplied:— 2 top end, 2 bottom end & 2 main bearing bolts,
1 set coupling bolts, 1 set feed & bilge pump valves, 1 set piston springs
Assorted Bolts & nuts & washers

The foregoing is a correct description,

per pro. **PLENTY & SON, LIMIT'D.**

Manufacturer.

E. J. Davis
SECRETARY.

Dates of Survey while building
 During progress of work in shops -- 1912 - Sept. 12, 18. Nov. 12, 15.
 During erection on board vessel --- 1913 - Jan. 10, 24, 30. Feb. 10.
 Total No. of visits 4 + 4 = 8

Is the approved plan of main boiler forwarded herewith Yes
 " " " donkey " " "

Dates of Examination of principal parts—Cylinders 18.9.12 Slides 13.11.12 Covers 18.9.12 Pistons 18.9.12 Rods 13.11.12
 Connecting rods 13.11.12 Crank shaft 21.9.12 Thrust shaft 25.9.12 Tunnel shafts ✓ Screw shaft 13.11.12 Propeller 13.11.12
 Stern tube 13.11.12 Steam pipes tested 30.1.13 Engine and boiler seatings 24.1.13 Engines holding down bolts 30.1.13
 Completion of pumping arrangements 10.2.13 Boilers fixed 10.2.13 Engines tried under steam 10.2.13
 Main boiler safety valves adjusted 130 lbs Thickness of adjusting washers 3/8 P.T.S.
 Material of Crank shaft Steel Identification Mark on Do. 10322 Material of Thrust shaft Steel Identification Mark on Do. 10322
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do. F329 S
 Material of Steam Pipes Solid drawn copper Test pressure 250 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c.) Engines constructed under special survey, material stated as required by the rules & workmanship good. Above intended for an S.S. building by C. H. Walker & Co. Sudbrook & have been forwarded to that port & be fitted on board.

S.P. B.A.H.W. No 15.

The Machinery of this vessel has now been fitted in the vessel, & found satisfactory & eligible to be classed with record of + LMC. 2.13.

It is submitted that this vessel is eligible for THE RECORD, + LMC. 2.13.

J.W.D.
6/3/13

Travelling Exp. £ 0-14-8
 The amount of Entry Fee .. £ 1 : 0 : 0 When applied for, 11 Dec 1912
 Special 2/3 Fee = 1/3 £ 2 - 13 - 4
 Donkey Boiler Fee .. £ : : :
 Travelling Expenses (if any) £ 1 : 9 : 6

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

Committee's Minute FRI. MAR. 7 - 1913
 Assigned + Lmb 2 13



Certificate (if required) to be sent to Committee's Minute.