

Rpt. 4.

REPORT ON MACHINERY.

No. 7148.

FRI. DEC. 8-1911

Port of MIDDLESBROUGH-ON-TYNE Received at London Office 19

No. in Survey held at Stockton-on-Tees Date, first Survey 11th June Last Survey 27th Nov. 1911

Reg. Book. on the Steel Screw Steamer "Wimborne" (S.S. No. 147) Tons { Gross 6078.85 Net 3688.75

Master E. W. Dalton Built at Thornaby By whom built Craig, Taylor & Co. Ltd. When built 1911

Engines made at Stockton By whom made Jessie Blair & Co. (No. 1726) when made 1911

Boilers made at Stockton By whom made Jessie Blair & Co. Ltd. when made 1911

Registered Horse Power 470 Owners W. Dalton & Co. (Thornaby) Port belonging to Cardiff

Nom. Horse Power as per Section 28 470 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Tri-compound No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 28-46-75 Length of Stroke 48 Revs. per minute 58 Dia. of Screw shaft 15.09 as per rule 16.7 as fitted Material of screw shaft iron

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 in one yes 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 tight fit If two liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 13.67

Dia. of Tunnel shaft 14.4 as per rule 14.36 as fitted Dia. of Crank shaft journals 14.36 as per rule 14.36 as fitted Dia. of Crank pin 15.4 Size of Crank webs 29.5 x 9.5 Dia. of thrust shaft under collars 15.4 Dia. of screw 18-0 Pitch of Screw 18-9 No. of Blades 4 State whether moveable no Total surface 104 sq ft

No. of Feed pumps 2 Diameter of ditto 3.5 Stroke 34 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 5 Stroke 34 Can one be overhauled while the other is at work yes

No. of Donkey Engines 4 Sizes of Pumps Ballant = 9 x 10 + 12 x 12 Red = 5.5 x 8 + 4 x 8 No. and size of Suctions connected to both Bilge and Donkey pumps 2 @ 3.5 in each hold except aftermost hold where 3 @ 3.5 : Funnel will one @ 3.5

In Engine Room 3 @ 3.5 In Holds, &c. 2 @ 3.5 in each hold except

No. of Bilge Injections 1 sizes 7 Connected to condenser circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 4

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 four holds How are they protected wood ceiling

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 18.9.11 of Stern Tube 18.9.11 Screw shaft and Propeller 5.10.11

Is the Screw Shaft Tunnel watertight see hull Rpt. Is it fitted with a watertight door yes worked from Top platform

OILERS, &c.—(Letter for record (6)) Manufacturers of Steel Jessie John Spencer & Sons

Total Heating Surface of Boilers 7891 Is Forced Draft fitted no No. and Description of Boilers 3 single ended

Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 22.9.11 No. of Certificate 4743

Can each boiler be worked separately yes Area of fire grate in each boiler 65.6 sq ft No. and Description of Safety Valves to each boiler 2 direct spring Area of each valve 8.29 sq in Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes

Smallest distance between boilers on uptakes and bunkers or woodwork 3'-0" External Mean dia. of boilers 16'-0" Length 11'-6" Material of shell plates steel

Thickness 1.5 Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 2 Riv lap

long. seams 28-3 Riv Diameter of rivet holes in long. seams 1.5/16 Pitch of rivets 9.5 Lap of plates or width of butt straps 19.5 x 1.5

Per centages of strength of longitudinal joint rivets 85.9 Working pressure of shell by rules 185 Size of manhole in shell 16 x 12

Size of compensating ring 7.5 x 1.5 No. and Description of Furnaces in each boiler 3 Morrison Material steel Outside diameter 47.4

Length of plain part top 27 bottom 24 Thickness of plates 27 top 24 bottom Description of longitudinal joint welded No. of strengthening rings yes

Working pressure of furnace by the rules 192 Combustion chamber plates: Material steel Thickness: Sides 3/32 Back 1/16 Top 3/32 Bottom 7/8

Pitch of stays to ditto: Sides 9.5 x 8.5 Back 9.5 x 8.5 Top 10 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 184

Material of stays steel Diameter at smallest part 1.59 Area supported by each stay 86.6 Working pressure by rules 207 End plates in steam space: Material steel Thickness 1.5 Pitch of stays 21.7 x 21.5 How are stays secured nuts + washers Working pressure by rules 183 Material of stays steel

Diameter at smallest part 3.16 Area supported by each stay 426 Working pressure by rules 191 Material of Front plates at bottom steel

Thickness 1 Material of Lower back plate steel Thickness 1.5 Greatest pitch of stays 15.5 x 8.5 Working pressure of plate by rules 222

Diameter of tubes 3.5 Pitch of tubes 4.5 x 4.5 Material of tube plates steel Thickness: Front 1.5 Back 1.5 Mean pitch of stays 11

Pitch across wide water spaces 14.5 Working pressures by rules 182 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8.5 x 2 Length as per rule 33 Distance apart 10 Number and pitch of stays in each 3 @ 8

Working pressure by rules 186 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately yes Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear yes

5500-1-383

VERTICAL DONKEY BOILER—

Manufacturers of Steel

See Huddlesbro's Report No 7002

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 easing 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 _____ Stayed by _____
 Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— Two each of con. rod top end & bottom end, and main bearing better nuts; one set coupling bolts & nuts; one set of feed and bilge pump valves assorted bolts and nuts; iron of various sizes; one screw shaft & one propeller.

The foregoing is a correct description,

Geo Wethership Manufacturer.

Dates of Survey while building _____ During progress of work in shops— _____ During erection on board vessel— _____
 Total No. of visits _____ Is the approved plan of main boiler forwarded herewith yes
 Return for duplicate _____

Dates of Examination of principal parts—Cylinders { 31.7.11 } Slides 28.7.11 Covers 11.8.11 Pistons 28.8.11 Rods 28.8.11
 Connecting rods 28.8.11 Crank shaft 14.9.11 Thrust shaft 11.8.11 Tunnel shafts { 31.7.11 } Screw shaft 20.9.11 Propeller 4.9.11
 Stern tube 8.9.11 Steam pipes tested { 12.10.11 } Engine and boiler seatings 18.9.11 Engines holding down bolts 11.10.11
 Completion of pumping arrangements 27.11.11 Boilers fixed 7.11.11 Engines tried under steam 7.11.11
 Main boiler safety valves adjusted 7.11.11 Thickness of adjusting washers P. Bls 5-3/8; Cut Bls 5-3/8; S. Bls 5-1/2
 Material of Crank shaft by steel Identification Mark on Do. 6684 Material of Thrust shaft by steel Identification Mark on Do. 8247
 Material of Tunnel shafts by steel Identification Marks on Do. 8247 Material of Screw shafts iron Identification Marks on Do. 6684
 Material of Steam Pipes solid drawn copper (5" x 1/4") Test pressure 400 lbs

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under Special Survey. The materials and workmanship are sound and good. The boilers and main steam pipes have been tested by hydraulic pressure and the engines and boilers examined under steam and all found satisfactory. The machinery is now in a good and safe working condition and eligible in my opinion to have the notation of L.M.C. - 11.11

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 11.11.

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

Rule NHP = 470
 The amount of Entry Fee. £ 3-0-0
 Special £ 43-10-0
 Donkey Boiler Fee £
 Travelling Expenses (if any) £

Committee's Minute
 Assigned
 TUE. DEC. 12. 1911
 L.P.N. 6.11.11

Lloyd's Register Foundation