

Rpt. 4.

REPORT ON MACHINERY.

No. 7148.

FRI. DEC. 8 - 1911

Port of MIDDLESBROUGH-ON-TYNE

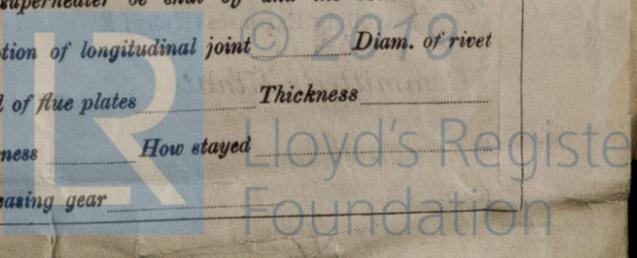
Received at London Office

No. in Survey held at Stockton-on-Tees Date, first Survey 17th June Last Survey 27th Nov 1911
 Reg. Book. on the Steel screw steamer "Wimborne" (S.S. No. 147) (Number of Visits 48)
 Master E. W. Dalton Built at Thornaby By whom built Craig, Taylor & Co. Ltd. When built 1911
 Engines made at Stockton By whom made Messrs Blair & Sons (No. 1726) when made 1911
 Boilers made at Stockton By whom made Messrs Blair & Sons Ltd when made 1911
 Registered Horse Power _____ Owners W. Dalton & Co. (Thornaby) Ltd 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 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 _____ Length of stern bush _____
 Dia. of Tunnel shaft 13.67 Dia. of Crank shaft journals 14.36 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
 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 No. and size of Suctions connected to both Bilge and Donkey pumps Red = 5.5 x 8 + 4 x 8
 In Engine Room 3 @ 3.5 In Holds, &c. 2 @ 3.5 in each hold except
aftermost hold where 3 @ 3.5 : Funnel well one @ 3.5
 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 Messrs 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 No. and Description of Safety Valves to each boiler 2 direct spring Area of each valve 8.29 sq Pressure to which they are adjusted 185 lb Are they fitted with easing gear yes
 Smallest distance between boilers on uptakes and bunkers or woodwork 3-0 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 1.75
 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 uniform Material steel Outside diameter 47.4
 Length of plain part top 37 bottom 64 Thickness of plates 37 bottom 64 Description of longitudinal joint welded No. of strengthening rings _____
 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 + 9 x 1 loose 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 _____ 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 _____
 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 _____

5500-0033





VERTICAL DONKEY BOILER— *Manufacturers of Steel* See *Middlebro's Report No 7002*

Form with fields for No., Description, Made at, By whom made, When made, Where fixed, Working pressure, Date of test, No. of Certificate, Fire grate area, Description of Safety Valves, etc.

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 Nettleship & Co., Limited.*

Geo Nettleship 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

Dates of Examination of principal parts—Cylinders, Slides, Covers, Pistons, Rods, Connecting rods, Crank shaft, Thrust shaft, Tunnel shafts, Screw shaft, Propeller, Stern tube, Steam pipes tested, Engine and boiler seatings, Engines holding down bolts, Completion of pumping arrangements, Boilers fixed, Engines tried under steam, Main boiler safety valves adjusted, Thickness of adjusting washers, Material of Crank shaft, Identification Mark on Do., Material of Thrust shaft, Identification Mark on Do., Material of Tunnel shafts, Identification Marks on Do., Material of Screw shafts, Identification Marks on Do., 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.

J.W.D.
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) £ : :
When applied for, 4.12.11
When received, 11.12.11

Committee's Minute
Assigned
TUE. DEC. 12. 1911
+ L.P.N. 11.11



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

ENCLOSURE
Please address communications this subject to SECRETARY
note the following initial.
E. Gent

the cons Rile

The

finder at center

Port. We Messrs Cra Specially Survey We here For boiler, Horse Power, above 200. T than £2 2s. MEM.—In all cases when to be defrayed

No. 429
This request is ma Foreign Shipping, While the Committee us od that neither the Co report or certificate issu or for any error of jud
Secretary, Lloyd's Register

Committee's Assigned