

REPORT ON MACHINERY.

Port of Newcastle

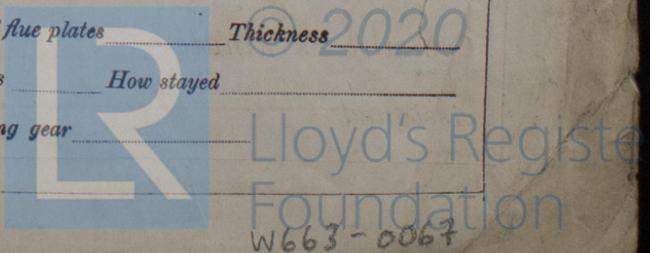
MUR. 16 OCT 1902

No. in Survey held at Newcastle Date, first Survey Sep 17 Last Survey Sep 19 1902
 Reg. Book. on the S/S. "New York" (Number of Visits 59)
 Master R. Butz Built at Jarrow By whom built Palmer's S.B. & S.C. Ltd Tons { Gross 7050
 Engines made at Jarrow By whom made Palmer's S.B. & S.C. Ltd Net 4634
 Boilers made at " By whom made " When built 1902
 Registered Horse Power " when made 1902
 Owners American Petroleum Co Port belonging to Rotterdam
 Nom. Horse Power as per Section 28 564 Is Refrigerating Machinery fitted no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines In E.P. No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 28" 46 1/2" 44" Length of Stroke 54" Revs. per minute 70 Dia. of Screw shaft as per rule 15.75"
 Dia. of Tunnel shaft as per rule none Dia. of Crank shaft journals as per rule 14.97" Dia. of Crank pin 15 1/8" Lgh. of stern bush 5'6 3/4"
 collars 15 1/8" Dia. of screw 19 ft. Pitch of screw 19 ft. No. of blades 4 State whether moveable yes Total surface 110 sq. ft.
 No. of Feed pumps 2 Diameter of ditto 5 1/4" Stroke 30" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 6" Stroke 30" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 4 Sizes of Pumps 72x72x6" 72x42x10" 61x82x6" 42x23 1/2x4 for S.P. No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3 of 32" In Holds, &c.

No. of bilge injections 1 sizes 7" Connected to condenser, or to circulating pump E.P. Is a separate donkey suction fitted in Engine room & size yes 5"
 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 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 none How are they protected yes
 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 new vessel Is the screw shaft tunnel watertight none
 Is it fitted with a watertight door yes worked from yes

BOILERS, &c.— (Letter for record B) Total Heating Surface of Boilers 9960 sq. ft. Is forced draft fitted no
 No. and Description of Boilers 4 single ended multi-tube Working Pressure 180 lb Tested by hydraulic pressure to 360 lb
 Date of test 25/3/02 Can each boiler be worked separately yes Area of fire grate in each boiler 67 sq. ft. No. and Description of safety valves to
 each boiler 2 Spring Area of each valve 7.06 Pressure to which they are adjusted 185 lb Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork about 15" Mean dia. of boilers 16'3" Length 11 ft. Material of shell plates S.
 Thickness 1 1/16" Range of tensile strength 29100 lb Are they welded or flanged ends Descrip. of riveting: cir. seams DR Lap long. seams T.T. Butt
 Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 9 1/4" Lap of plates or width of butt straps 20 1/2"
 Per centages of strength of longitudinal joint rivets 86.75 Working pressure of shell by rules 188 lb Size of manhole in shell 16"x12"
 plate 85.75 Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Material S. Outside diameter 4'1 3/4"
 Length of plain part top 5 1/8" Thickness of plates crown 5 1/8" Description of longitudinal joint welded No. of strengthening rings yes
 bottom 5 1/8" Working pressure of furnace by the rules 200 lb Combustion chamber plates: Material S. Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 7/8"
 Pitch of stays to ditto: Sides 82"x82" Back 82"x82" Top 82"x82" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 184 lb
 Material of stays S. Diameter at smallest part 1 1/8" Area supported by each stay 722.5 Working pressure by rules 222 lb End plates in steam space:
 Material are Thickness 1 1/8" Pitch of stays 19 1/2" 16 1/2" How are stays secured Dr nuts Working pressure by rules 195 lb Material of stays S.
 Diameter at smallest part 6'3" Area supported by each stay 315.8 Working pressure by rules 194 Material of Front plates at bottom S.
 Thickness 3/32" Material of Lower back plate S. Thickness 1" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 245 lb
 Diameter of tubes 3 1/4" Pitch of tubes 42"x42" Material of tube plates S. Thickness: Front 3/32" Back 3/32" Mean pitch of stays 9"
 Pitch across wide water spaces 15 1/2" Working pressures by rules 244 lb Girders to Chamber tops: Material S. Depth and
 thickness of girder at centre 9"x2" Length as per rule 34" Distance apart 82" Number and pitch of Stays in each 3 @ 8 1/4"
 Working pressure by rules 312 lb 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
 holes " Pitch of rivets " Working pressure of shell by rules " Diameter of flue " Material of flue plates " Thickness "
 If stiffened with rings yes 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 yes



DONKEY BOILER— No. 1 Description Cyl. Multitubular.
 Made at Jarrow By whom made Palmer's S.S. & I.C. Co. When made 1902 Where fixed Main deck
 Working pressure 100 lbs tested by hydraulic pressure to 200 lbs No. of Certificate 6276 Fire grate area 30 sq ft Description of safety valves Spring
 No. of safety valves 2 Area of each 4.9 sq ft Pressure to which they are adjusted 105 lbs If fitted with easing gear yes If steam from main boilers can enter the donkey boiler no
 Dia. of donkey boiler 9 ft Length 9 ft Material of shell plates S. Thickness 3/8 in Range of tensile strength 39 tons Descrip. of riveting long. seams LR lap Dia. of rivet holes 7/8 in Whether punched or drilled D. Pitch of rivets 3 1/2 in
 Lap of plating 6 3/8 in Per centage of strength of joint 80.5 Rivets 80.5 Thickness of shell crown plates 3/4 in Radius of do. — No. of Stays to do. 6
 Dia. of stays 2.66 in Diameter of furnace Top 2.9 in Bottom — Length of furnace 6 ft Thickness of furnace plates 9 in Description of joint Stitch Thickness of furnace crown plates 9 in Stayed by 1 3/8 in Stays @ 9 x 8 1/2 in Working pressure of shell by rules 10 1/2 lbs
 Working pressure of furnace by rules 118 1/2 lbs Diameter of uptake 3 in Thickness of uptake plates 5 3/4 in Thickness of water tubes Noting

SPARE GEAR. State the articles supplied: 1/3 Crank shaft. for peller shaft. 1 set connecting rod bolts & nuts. 1 set main bearing bolts & nuts. 1 set coupling bolts & nuts. 1 set feed & bilge pump valves. 3. nuts bolts & various sizes of iron rods, plates &c.
 The foregoing is a correct description, Palmer's Shipbuilding & Iron Co. Ltd. Manufacturer.

Dates of Survey while building: During progress of work in shops: 1901. Sep. 17. Oct. 25. 31. Nov. 2. 5. 6. 7. 8. 11. 12. 13. 14. 29. Dec. 3. 5. 11. 16. 18. 19. 22. 1902. Jan. 23. 27. 29. Feb. 3. 6. 10. 11. 21. 24. 27. 28. Mar. 1. 12. 14. 19. 24. 25. Apr. 1. 9. 24. 30. May 14. 22. 29. June 3. 11. 6. 9. 10. 23. Aug. 19. 20. 26. Sep. 1. 10. 17. 18. 19
 Total No. of visits 59. Is the approved plan of main boiler forwarded herewith yes
 " " " donkey " " " yes

General Remarks (State quality of workmanship, opinions as to class, &c.)
Good & efficient

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 —
 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 yes. If two liners are fitted, is the shaft lapped or protected between the liners —

Machinery and boilers constructed under Special Survey materials and workmanship good. Engines & boilers examined under steam & found satisfactory
In my opinion this vessel is eligible for the record of L.M.C. 9/02 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD - L.M.C. 9:02 etc. Light.
16.10.02

The amount of Entry Fee.. £ 2 : : : When applied for, 15 OCT 1902
 Special £ 48 4 : : :
 Donkey Boiler Fee £ : : : When received, 17 OCT 1902
 Travelling Expenses (if any) £ : : :
 FRI. 17 OCT 1902

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

Committee's Minute
 Assigned



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Newcastle-on-Tyne

Certificate (if required) to be written on or below the space for Committee's Minutes.

MACHINERY CERTIFICATE
 WRITTEN