

Port of WEST HARTLEPOOL.

Received at London Office TUES. 10 APR 1906

No. in Survey held at West Hartlepool Date, first Survey 5th May, 1905 Last Survey 27th March 1906
 Reg. Book. S. L. Coaling ex. Kala Furness Wharf 286
 Master Williams Built at W Hartlepool By whom built Furness Withy & Co. Ltd. When built 1906
 Engines made at W Hartlepool By whom made Richardson Westgarth & Co. Ltd. When made 1906
 Boilers made at W Hartlepool By whom made Richardson Westgarth & Co. Ltd. When made 1906
 Registered Horse Power 317 Owners Elder Dempster & Co. Port belonging to Liverpool
 Nom. Horse Power as per Section 28 317 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 24" 39" 66" Length of Stroke 45" Revs. per minute 60 Dia. of Screw shaft 14 1/2" 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 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 — Length of stern bush 4'-10"
 Dia. of Tunnel shaft 12-05 Dia. of Crank shaft journals 12-55 Dia. of Crank pin 13' Size of Crank webs 8'2-1/2 Dia. of thrust shaft under
 collars 13" Dia. of screw 16'-9" Pitch of screw 16'-6" No. of blades 4 State whether moveable No Total surface 87.5 sq
 No. of Feed pumps 2 Diameter of ditto 3" Stroke 27 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 3 3/4" Stroke 27 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps Feed. 6x4x6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room (3) 3 1/2" Dia Basin 8 1/2 x 7 double In Holds, &c. (8) 3 1/2" Dia 2 No 1 hold 2 No 2
hold 2 No 3 hold 2 No 4 hold 1 Tunnel well 2 1/2" dia
 No. of bilge injections 1 sizes 5" Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size Yes 3 1/2"
 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 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 —
 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 Nov Dec Is the screw shaft tunnel watertight Yes
 Is it fitted with a watertight door Yes worked from Eng room top platform

BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 4891 sq Is forced draft fitted No
 No. and Description of Boilers Two SE Cyl Multitubular Working Pressure 180 lb Tested by hydraulic pressure to 360 lb
 Date of test 12/1/06 Can each boiler be worked separately Yes Area of fire grate in each boiler 52.3 sq No. and Description of safety valves to
 each boiler 2 Spring Area of each valve 7.06 sq 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 16" Mean dia. of boilers 16.0" Length 10.9' Material of shell plates S
 Thickness 1 9/32 Range of tensile strength 28.3/32 Are they welded or flanged No Descrip. of riveting: cir. seams DR long. seams TRDBS
 Diameter of rivet holes in long. seams 19/32 Pitch of rivets 8 5/8" Lap of plates or width of butt straps 18 1/4"
 Per centages of strength of longitudinal joint 86.8 Working pressure of shell by rules 181.5 lb Size of manhole in shell 13x16 1/2"
 Size of compensating ring 19/32 No. and Description of Furnaces in each boiler 3 Morrison Material S Outside diameter 50 3/4"
 Length of plain part 9' Thickness of plates 19/32 Description of longitudinal joint Welded No. of strengthening rings —
 Working pressure of furnace by the rules 186 lb Combustion chamber plates: Material S Thickness: Sides 19/32 Back 19/32 Top 19/32 Bottom 7/8
 Pitch of stays to ditto: Sides 7 1/2 x 8 1/2 Back 8 x 8 1/4 Top 7 1/4 x 8 1/4 If stays are fitted with nuts or riveted heads Sub Working pressure by rules 183.5 lb
 Material of stays S Diameter at smallest part 1 3/8" Area supported by each stay 65 sq Working pressure by rules 180 lb End plates in steam space:
 Material S Thickness 1 3/32 Pitch of stays 16 3/4 x 16 1/2 How are stays secured DN40 Working pressure by rules 181 lb Material of stays S
 Diameter at smallest part 2 5/8 Area supported by each stay 278 sq Working pressure by rules 194 lb Material of Front plates at bottom S
 Thickness 7/8 Material of Lower back plate S Thickness 1 3/16 Greatest pitch of stays 13' Working pressure of plate by rules 194 lb
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" Material of tube plates S Thickness: Front 17/16 Back 3/4 Mean pitch of stays 9'
 Pitch across wide water spaces 14 1/4 Working pressures by rules 188 lb Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 8 1/2 x 1 3/4 Length as per rule 32" Distance apart 8 3/4 Number and pitch of Stays in each (3) 7 1/4
 Working pressure by rules 187 lb 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 —

DONKEY BOILER— No. _____ Description _____

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 _____ Pressure to which they are adjusted _____ 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 _____ 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 _____

Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____

Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *Spare propeller. 1 Set of C/c & Air Pump valves 2 Main & 2 Donkey feed check valves & spare gear as per rules*

The foregoing is a correct description,
for **RICHARDSON, WESTGARTH & CO., LIMITED**
Manufacturer.

M. J. M. J.
Managing Director.
1905. May 5. 6. 8. 22. 23. 25. 26. June 2. 6. 7. 8. 9. 10. 26. 29. July 11. 24. Aug. 1. Oct. 3. 5. 6. 17. 30. Nov. 1. 2. Dec. 1. 4. 5. 6. 7. 8. 11. 13. 14. 15. 29. 1906. Jan. 5. 8. 9. 10. 15. 17. 18. 19. 22. 23. 30. 31. Feb. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. Mar. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. Apr. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. May 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. Jun. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. Jul. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. Aug. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. Sep. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. Oct. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. Nov. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. Dec. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31.

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 *ylo*

" " " donkey " " " "

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

The Engines & Boilers of this vessel have constructed under special survey & the materials & workmanship are sound & good. The engines have been tried under steam & the safety valves of the main & donkey boilers have been adjusted to the working pressure.

The Machinery is now in good & safe working condition & eligible in my opinion to have the notation of + L. M. C. (unred) in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD H.L.M.C. 3.06.

Publ.
10.4.06

The amount of Entry Fee.. £ 3 : :
Special .. £ 15 : 17 :
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) £ : :

When applied for, 4. 4. 06
When received, 7. 4. 06

Thos. J. Thornton
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

THUR. 12 APR 1906

Assigned

+ hmic 3.06

MACHINERY CERTIFICATE
WRITTEN.



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Lloyd's Register
Foundation

West Hartlepool

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)