

REPORT ON MACHINERY.

Port of SunderlandReceived at London Office MON. 23 APR 1900

No. in Survey held at Sunderland Date, first Survey 14th June 1899 Last Survey 5th April 1900
 1. Book. S/S Askehall (Number of Visits 46)
 2. S. on the Louis Haun Built at Middlesbrough By whom built R. Craggs & Sons Tons { Gross 4231
 3. Lines made at S. land By whom made W. Allan & Co. Ltd. when made 1899
 4. Makers made at S. land By whom made W. Allan & Co. Ltd. when made 1899
 5. Registered Horse Power 378 Owners W. & A. Pool Steam Navigation Co. Ltd. Port belonging to West Hartlepool
 6. Horse Power as per Section 28 378 Is Electric Light fitted no

GINES, &c.—Description of Engines Tri. Exp. d. No. of Cylinders 3 No. of Cranks 3
 Diameter of Cylinders 25 41 69 Length of Stroke 48 Revolutions per minute 65 Diameter of Screw shaft as per rule 13.33
 Diameter of Tunnel shaft as per rule 12.06 Diameter of Crank shaft journals 13 Diameter of Crank pin 13 Size of Crank webs 19 x 8 7/8
 Diameter of screw 14 6 Pitch of screw 14 6 No. of blades 4 State whether moveable f Total surface 90 sq
 No. of Feed pumps 2 Diameter of ditto 3 3/4 Stroke 27 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 Stroke 27 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 10 x 10 1/2 x 11 1/2 6 1/2 x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 30 of 3 1/2 In Holds, &c. 20 of 3 1/2 to each Cargo Comp.
 Well 3
 No. of bilge injections 1 sizes 5 Connected to condenser, or to circulating pump C.P. 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
 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
 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 new vessel Is the screw shaft tunnel watertight separately
 Is it fitted with a watertight door yes worked from upper grating

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 6120 sq Is forced draft fitted no
 No. and Description of Boilers 3 by del. Muthers & Sons Working Pressure 180 lbs Tested by hydraulic pressure to 360
 Date of test 5/11/99 Can each boiler be worked separately yes Area of fire grate in each boiler 50 No. and Description of safety valves to
 each boiler 2 Spring Area of each valve 4.04 Pressure to which they are adjusted 185 lbs Are they fitted
 with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 16" Mean diameter of boilers 14' 0 5/8"
 Length 11' 0" Material of shell plates S Thickness 1 3/16 Description of riveting: circum. seams DR lap long. seams T. & d. butt
 of rivet holes in long. seams 1 3/16 Pitch of rivets 8" Lap of plates or width of butt straps 16"
 Ages of strength of longitudinal joint 86.4 Working pressure of shell by rules 180 1/2 Size of manhole in shell 16" x 12"
 Compensating ring Flanged No. and Description of Furnaces in each boiler 3 Cornue Material S Outside diameter 3' 4"
 of plain part 9" Thickness of plates 1 1/32 Description of longitudinal joint Welded No. of strengthening rings
 Working pressure of furnace by the rules 190 1/2 Combustion chamber plates: Material S Thickness: Sides 1/8" Back 1/8" Top 1/8" Bottom 1/8"
 Pitch of stays to ditto: Sides 9 1/2 x 9 1/2 Back 10 x 8 1/2 Top 9 1/2 x 9 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 195 1/2
 Material of stays S Diameter at smallest part 1.79 Area supported by each stay 85.5 Working pressure by rules 186 1/2 End plates in steam space:
 Material S Thickness 1 3/32 Pitch of stays 20" x 20" How are stays secured d. nuts Working pressure by rules 183 Material of stays S
 Diameter at smallest part 7.24 Area supported by each stay 400 Working pressure by rules 181 1/2 Material of Front plates at bottom S
 Thickness 1/8" Material of Lower back plate S Thickness 3/4" Greatest pitch of stays 14" Working pressure of plate by rules 200 1/2
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2 x 4 1/4 Material of tube plates S Thickness: Front 1/8" Back 3/16" Mean pitch of stays 11"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 312 1/2 Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 9 x 20 1/2 3/4 Length as per rule 21.5 Distance apart 9 1/4" Number and pitch of Stays in each 20 of 9 1/2"
 Working pressure by rules 188 1/2 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
 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— Description *None fitted.*
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
enter the donkey boiler ☒ Diameter of donkey boiler ☒ Length ☒ Material of shell plates ☒ Thickness ☒
Description of riveting long. seams ☒ Diameter 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 ☒ Descript
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 gear supplied in accordance with requirements and in addition, propeller & shaft. 1/3 crank & 2 safety valve Springs*

The foregoing is a correct description,

WILLIAM ALLAN & CO. LIMITED, Manufacturers Main Engines

Harry James
Dates of Survey while building
During progress of work in shops— 1899— June 14. 16. 24. 29. July 4. 7. 11. 13. 14. 20. 22. 27. 29. August 2. 15. 18. 22. 25. 31.
During erection on board vessel— Sept 1. 6. Oct 5. 12. 19. 26. 31. Nov 2. 6. 8. 14. 15. 22 1900— Jan 12. 17. 18. 22.
Total No. of visits 46. Mdb. 4. March 8. 20. 21. 22. 23. 26. 28. April 2. 5.
Mdb. 1900 Feb. 20. 28. March 15. April 14.

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

ENGINES—Length of stern bush *5 ft.* Diameter of crank shaft journals *as per rule 12.69.* Diameter of thrust shaft under collars *13"*
BOILERS—Range of tensile strength *24-32* *as fitted 13"* *they welded or flanged ends* DONKEY BOILERS—No. ☒ Range of tensile strength ☒

Is the approved plan of main boiler forwarded herewith *duplicate* Is the approved plan of donkey boiler forwarded herewith ☒

Machinery and boilers constructed under special materials and workmanship good. engines examined steam & safety valves adjusted under steam to 185 lbs. the vessel has returned to Middlebro. for completion where the following remains to be done. pumping arrangement completed as per approved plan & spare gear examined 4 tunnel watertight door fitted

In our opinion this vessel will be eligible for the record of L.M.C. 4/100 when completed.

The above mentioned requirements have now been carried out

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 4.00

The amount of Entry Fee.. £ 3: : When applied for, 12.4.00
Special .. £ 38: 18: :
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) £ : :
When received, 12/5/1900

Committee's Minute

Assigned

FRI 27 APR 1900

+ L.M.C. 4.00

J. Lindley Lidley & Co.
Engineer Surveyor to Lloyd's Register of British & Foreign



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