

REPORT ON MACHINERY.

Received at London Office

Date of writing Report 19 When handed in at Local Office 1 MAY 1924 Port of Sunderland FRI. 2 MAY. 1924
 No. in Survey held at Sunderland Date, First Survey 7 Feb. 1924 Last Survey 25 April 1924
 Reg. Book. on the new steel S/S "ASHTREE" (Number of Visits 18)

Master Built at Stockton By whom built Braig Taylor & Co. (S/NP 210) When built 1924
 Engines made at Sunderland By whom made N.E. Marine Eng. Co. Ld. (N-2572) when made 1924
 Boilers made at Sunderland By whom made N.E. Marine Eng. Co. Ld. (N-2572) when made 1924
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Nom. Horse Power as per Section 28 189 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

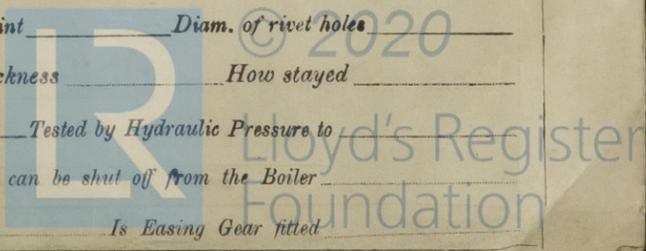
ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 19-31-51 Length of Stroke 36 Revs. per minute 82 Dia. of Screw shaft 10-98 Material of S. steel
 as fitted 11 1/4 screw shaft)
 Is the screw shaft fitted with a continuous liner the whole length 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 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 _____ If two
 liners are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush 3'-8 1/2
 Dia. of Tunnel shaft 9.58 as per rule 10.06 Dia. of Crank shaft journals 10 1/2 as fitted 10 1/2 Dia. of Crank pin 10 1/2 Size of Crank webs 15 1/2 x 6 5/16 Dia. of thrust shaft under
 collars 10 1/4 Dia. of screw 13-9 Pitch of Screw 13-9 No. of Blades 4 State whether moveable no Total surface 580
 No. of Feed pumps 2 Diameter of ditto 3 Stroke 16 1/2 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 16 1/2 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 8 1/2 x 8. 5 1/2 x 3 1/2 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three @ 2 1/2 In Holds, &c. Fore hold 2 @ 3" aft hold 3 @ 3"
Tunnel well on @ 3"
 No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump 6 P. 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 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 forward hold suction How are they protected under limberboards
 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
 Is the Screw Shaft Tunnel watertight see hull Pkt Is it fitted with a watertight door yes worked from Top platform

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel John Spence & Sons Ld.
 Total Heating Surface of Boilers 3188 Is Forced Draft fitted no No. and Description of Boilers Two single ended marine
 Working Pressure 180 Tested by hydraulic pressure to 320 Date of test 24-3-24 No. of Certificate 3867
 Can each boiler be worked separately yes Area of fire grate in each boiler 44 No. and Description of Safety Valves to
 each boiler two direct opening Area of each valve 5.94 Pressure to which they are adjusted 185 Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 4'-0" Mean dia. of boilers 13-3 1/16 Length 10'-0" Material of shell plates steel
 Thickness 1 3/32 Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR
 long. seams NBS. TR Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 8 1/8 Lap of plates or width of butt straps 1-5
 Per centages of strength of longitudinal joint 86.6 Working pressure of shell by rules 181 Size of manhole in shell 16" x 12"
 plate 86.15 3 cf. No. and Description of Furnaces in each boiler 3 Deighton Material steel Outside diameter 2-11 5/32
 Length of plain part top 29" Thickness of plates bottom 29" Description of longitudinal joint welded No. of strengthening rings _____
 Working pressure of furnace by the rules 183 Combustion chamber plates: Material steel Thickness: Sides 23/32 Back 25/32 Top 23/32 Bottom 23/32
 Pitch of stays to ditto: Sides 10 1/16 x 9 1/2 Back 11 x 10 1/4 Top 10 x 9 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180
 Material of stays steel Area at smallest part 2.360 Area supported by each stay 118.250 Working pressure by rules 180 End plates in steam space:
 Material steel Thickness 1 1/32 Pitch of stay 23 x 17 1/2 How are stays secured DN&W Working pressure by rules 186 Material of stays steel
 Area at smallest part 6.490 Area supported by each stay 402.50 Working pressure by rules 181 Material of Front plates at bottom steel
 Thickness 7/8 Material of Lower back plate steel Thickness 7/8 Greatest pitch of stays 14 1/2 x 10 3/4 Working pressure of plate by rules 192
 Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 5/8 Material of tube plates steel Thickness: Front 7/8 Back 3/4 Mean pitch of stays 10.5
 Pitch across wide water spaces 14 1/2 Working pressures by rules 181 Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 2 @ 8 x 3 Length as per rule 30 1/2 Distance apart 10 Number and pitch of stays in each 2 @ 9 1/2
 Working pressure by rules 188 Steam dome: description of joint to shell none % of strength of joint _____
 Diameter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____
 Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SUPERHEATER. Type _____ Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____
 Date of Test _____ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler _____
 Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____

If not, state whether, and when, one will be sent

002260-002268-0118



IS A DONKEY BOILER FITTED? - No -

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Two connecting rod top and bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed and bilge pump valves, iron and bolts of various sizes, one propeller, one safety valve spring, one each of main & donkey feed check valves.

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING CO. LTD.

C. T. Adams

Manager.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1924. Feb. 7, 8, 22, 26, 28. March, 6, 11, 12, 14, 22, 24, 26. April, 2, 11, 18, 23, 24, 25. During erection on board vessel --- Total No. of visits 18 + 3 = 21. (1003 - main 11.14. main 2)

Is the approved plan of main boiler forwarded herewith? yes ✓

Is the approved plan of donkey boiler forwarded herewith? ✓

Dates of Examination of principal parts—Cylinders 11-3-24 Slides 28-2-24 Covers 2-4-24 Pistons 28-2-24 Rods 22-3-24 Connecting rods 22-3-24 Crank shaft 11-3-24 Thrust shaft 24-3-24 Tunnel shafts 24-3-24 Screw shaft 24-3-24 Propeller 24-3-24 Stern tube 24-3-24 Steam pipes tested 18-4-24 Engine and boiler seatings 14-3-24 Engines holding down bolts 23-4-24 Completion of pumping arrangements 25-4-24 Boilers fixed 18-4-24 Engines tried under steam 25-4-24 Completion of fitting sea connections 14-3-24 Stern tube 14-4-24 Screw shaft and propeller 14-4-24 Main boiler safety valves adjusted 25-4-24 Thickness of adjusting washers Port boiler F 3/8" A 1/16" steel br. both 3/8". Material of Crank shaft J. steel Identification Mark on Do. LLOYD'S No 2176 Material of Thrust shaft J. steel Identification Mark on Do. LLOYD'S No 2184 Material of Tunnel shafts J. steel Identification Marks on Do. LLOYD'S No 2248 & No 22970 Material of Screw shafts J. steel Identification Marks on Do. LLOYD'S No 2196 Material of Steam Pipes solid drawn copper Test pressure 400

Is an installation fitted for burning oil fuel? no ✓ Is the flash point of the oil to be used over 150°F. —

Have the requirements of Section 49 of the Rules been complied with? ✓

Is this machinery duplicate of a previous case? no ✓ If so, state name of vessel —

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

The materials and workmanship are good. The machinery has been constructed under special survey and is eligible in our opinion for classification and the record + LMC 5-24, the survey having now been satisfactorily completed.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5-24 CL.

J. W. Adams 20/5/24

L. Adams & W. Morrison Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3: When applied for. Special ... £ 47: 5: 30 APR 1924 Donkey Boiler Fee ... £ : : When received. Travelling Expenses (if any) £ : : 16.5.24

Committee's Minute FRI. MAY. 23 1924 Assigned + LMC 5.24 C.L.



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SUNDERLAND.

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

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