

REPORT ON MACHINERY.

No. 26953

Date of writing Report 19th Nov. 1913 When handed in at Local Office 26th Nov. 1913 Port of Hull Received at London Office THU. NOV. 27. 1913
 No. in Survey held at Hull Date, First Survey Aug 21st Last Survey Nov 17th 1913
 Reg. Book 304 on the steel S.S.K. "Lord Londesborough" (Number of Visits 18)
 Master Selby Built at Selby By whom built Cochrane & Sons Ltd Tons { Gross 307 Net 124 }
 Engines made at Hull By whom made Amos & Smith Ltd When built 1913
 Boilers made at Hull By whom made Amos & Smith Ltd when made 1913
 Registered Horse Power 90 Owners Yorkshire ste. Fishing Co -Port belonging to Hull
 Nom. Horse Power as per Section 28 90 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 13-22³/₄-37 Length of Stroke 26 Revs. per minute 194 Dia. of Screw shaft 8¹/₄ Material of screw shaft St. S.
 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 no 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 no If two liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 3'-0"
 Dia. of Tunnel shaft 7.02 as per rule 7¹/₂ Dia. of Crank shaft journals 7.37 as per rule 7¹/₂ Dia. of Crank pin 7¹/₂ Size of Crank web 4³/₄ x 4³/₄ Dia. of thrust shaft under collars 7¹/₂ Dia. of screw 9'-9" Pitch of Screw 11'-3" No. of Blades 4 State whether moveable no Total surface 34⁵/₈
 No. of Feed pumps 1 Diameter of ditto 2⁷/₈ Stroke 12" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 1 Diameter of ditto 2⁷/₈ Stroke 12" Can one be overhauled while the other is at work no
 No. of Donkey Engines one Sizes of Pumps 6x4¹/₄x6" Duplex No. and size of Suctions connected to both Bilge and Donkey pumps Two 2" Sta for. Sta aft. In Holds, &c. Three - 2" Fishroom, Forepeak and Washwell. 2" ejector from all bilges.
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size 2" ejector
 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 no
 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 Hold Suctions How are they protected Wood casing
 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 29.9.13. of Stern Tube 29.9.13. Screw shaft and Propeller 29.9.13.
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from no

BOILERS, &c.—(Letter for record S.S.) Manufacturers of Steel Mechanisch-werk Schulz-Knaack, Hildesheim
 Total Heating Surface of Boilers 1511 Is Forced Draft fitted no No. and Description of Boilers One Single-ended
 Working Pressure 200lbs Tested by hydraulic pressure to 400lbs Date of test 28.10.13 No. of Certificate 2030
 Can each boiler be worked separately yes Area of fire grate in each boiler 4.8⁵/₈ No. and Description of Safety Valves to each boiler Two Spring-loaded Area of each valve 4.9 Pressure to which they are adjusted 200lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 13-11³/₈ Length 10-7³/₈ Material of shell plates S.S.
 Thickness 1³/₁₆ Range of tensile strength 29-33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams WRd.
 long. seams WRd. Diameter of rivet holes in long. seams 1¹/₄ Pitch of rivets 8³/₄ Lap of plates or width of butt straps 17³/₄
 Per centages of strength of longitudinal joint 87.85 Working pressure of shell by rules 200lbs Size of manhole in shell 16 x 12
 Size of compensating ring 40 x 30 x 1³/₁₆ No. and Description of Furnaces in each boiler 3 plain Material S.S. Outside diameter 3'-4¹/₈
 Length of plain part 6'-6" Thickness of plates 13" Description of longitudinal joint Welded No. of strengthening rings no
 Working pressure of furnace by the rules 206 Combustion chamber plates: Material S.S. Thickness: Sides 11¹/₁₆ Back 23¹/₁₆ Top 11¹/₁₆ Bottom 13¹/₁₆
 Pitch of stays to ditto: Sides 9³/₄ x 7¹/₄ Back 9³/₄ x 8¹/₂ Top 7¹/₄ x 9¹/₂ stays are fitted with nuts or riveted heads nuts Working pressure by rules 210
 Material of stays S.S. at smallest part 2.066 Area supported by each stay 81.81 Working pressure by rules 217 End plates in steam space: Material S.S. Thickness 1³/₃₂ Pitch of stays 17¹/₄ x 17¹/₄ Working pressure by rules 201 Material of stays S.S.
 at smallest part 7.24 Area supported by each stay 315.162 Working pressure by rules 238 Material of Front plates at bottom S.S.
 Thickness 1" Material of Lower back plate S.S. Thickness 29¹/₃₂ Greatest pitch of stays 13³/₄ x 9¹/₈ Working pressure of plate by rules 217
 Diameter of tubes 3¹/₂ Pitch of tubes 5' x 4³/₄ Material of tube plates S.S. Thickness: Front 1" Back 27¹/₃₂ Mean pitch of stays 12¹/₂ x 4³/₄
 Pitch across wide water spaces 13³/₄ Working pressures by rules 203 Girders to Chamber tops: Material S.S. Depth and thickness of girder at centre 9³/₄ x 2 Length as per rule 36" Distance apart 9¹/₂ Number and pitch of stays in each 3 at 7³/₄
 Working pressure by rules 204 Superheater or Steam chest; how connected to boiler no Can the superheater be shut off and the boiler worked separately no
 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

26953-0056

IS A DONKEY BOILER FITTED? *No.* If so, is a report now forwarded? *No.*
 SPARE GEAR. State the articles supplied:— *Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set of coupling bolts and nuts, one set each feed and bilge pump valves, iron of various sizes, a quantity of assorted bolts, nuts, etc.*

The foregoing is a correct description,
 FOR AMOS & SMITH LTD,
W. S. Wade Manufacturer.

Managing Director,
 Dates of Survey while building: During progress of work in shops - - 1913. *Per J. G. Mackie* Aug 21. Sep 13. 25. 29. Oct 7. 16. 17. 21. 23. 28. 31. Nov. 1. 7. 8. 10. 13.
 During erection on board vessel - - - *Nov 15. 17*
 Total No. of visits *18.* Is the approved plan of main boiler forwarded herewith *yes* ✓

Dates of Examination of principal parts—Cylinders *13.9.13* Slides *13.9.13* Covers *13.9.13* Pistons *29.9.13* Rods *29.9.13*
 Connecting rods *7.10.13* Crank shaft *23.10.13* Thrust shaft *23.10.13* Tunnel shafts ✓ Screw shaft *25.9.13* Propeller *25.9.13*
 Stern tube *25.9.13* Steam pipes tested *7.11.13* Engine and boiler seatings *29.9.13* Engines holding down bolts *8.11.13*
 Completion of pumping arrangements *8.11.13* Boilers fixed *31.10.13* Engines tried under steam *10.11.13*
 Main boiler safety valves adjusted *10.11.13* Thickness of adjusting washers *AV 9/16" FV 3/8"*

Material of Crank shaft *S.* Identification Mark on Do. *1187* Material of Thrust shaft *S.* Identification Mark on Do. *1187*
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *S.* Identification Marks on Do. *1187*
 Material of Steam Pipes *Copper solid drawn.* Test pressure *400lbs hyd. pressure.*
 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 engines and boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The boiler tested by hydraulic pressure and with the engines secured on board and tested under steam they are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of LMC 11.13 in the Register book.*

Enclosed is plan of alteration to pumping plan, also letter from builders respecting same.

It is submitted that this vessel is eligible for THE RECORD. + LMC 11.13.

The amount of Entry Fee	£ 1	:	:	When applied for,
Special	£ 13	:	10	26.11.13.
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	:	4	28.11.13.

J. G. Mackie
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *FRI. NOV. 28. 1913*
 Assigned *L.M.C. 11.13*

Certificate (if required) to be sent to the Surveyors and Registrar, not to be written on or below the space for Committee's Minute.

MACHINERY CERTIFICATE WRITTEN.

