

# REPORT ON MACHINERY

No. 26818  
SAT. OCT. 18, 1913

Received at London Office

Date of writing Report 7th Oct. 1913 When handed in at Local Office 7-10-13 Port of Hull

No. in Survey held at Hull Date, First Survey April 25th Last Survey Oct. 1st 1913  
Reg. Book. 18. on the Steel sekr "Specton" (Number of Visits 20)

Master By whom built Coehrs & Co Ltd - When built 1913  
Engines made at Hull By whom made C. N. Holmes & Co Ltd when made 1913

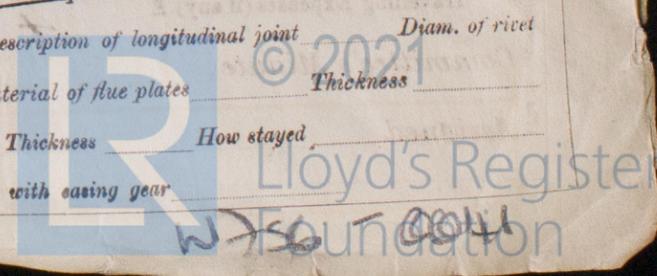
Boilers made at Hull By whom made C. N. Holmes & Co Ltd when made 1913

Registered Horse Power 50 Owners Hull Ste. Fishing Co Port belonging to Hull

Nom. Horse Power as per Section 28 50 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 10-17-28 Length of Stroke 24 Revs. per minute as per rule Dia. of Screw shaft 7.4 Material of screw shaft 9  
 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 Yes If two liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 36  
 Dia. of Tunnel shaft 5.76 Dia. of Crank shaft journals 6.05 Dia. of Crank pin 6.2 Size of Crank webs 4x12 Dia. of thrust shaft under collars 6.2 Dia. of screw 10-6 Pitch of Screw 8-6 No. of Blades 4 State whether moveable No Total surface 30  
 No. of Feed pumps 1 Diameter of ditto 2.2 Stroke 11 Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 1 Diameter of ditto 2.4 Stroke 11 Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 1 Sizes of Pumps 6x4.4x6 No. and size of Suctions connected to both Bilge and Donkey pumps Two 2" one forward, one aft.  
 In Engine Room Two 2" one forward, one aft. In Holds, &c. One 2" Main hold, one 2" fore-castle, 3" ejector.  
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 3" 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 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 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 5.7.13 of Stern Tube 5.7.13 Screw shaft and Propeller 5.7.13  
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

**BOILERS, &c.**—(Letter for record S) Manufacturers of Steel Messrs Blechwalzwerk Schulz-Krauth & Huchingen  
 Total Heating Surface of Boilers 835 Is Forced Draft fitted No No. and Description of Boilers One single-ended  
 Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 12.9.13 No. of Certificate 2013  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 27.37 No. and Description of Safety Valves to each boiler 2 Spring-loaded Area of each valve 3.14 Pressure to which they are adjusted 200 lbs Are they fitted with casing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 10-9 Length 9-3 Material of shell plates S  
 Thickness 3/32 Range of tensile strength 29 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams 10 R. long. seams 1 R. D.B. Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 7 1/4 Lap of plates or width of butt straps 16 1/4  
 Per centages of strength of longitudinal joint 93.9 Working pressure of shell by rules 203 Size of manhole in shell 16x12  
 Size of compensating ring 7x3 1/2 No. and Description of Furnaces in each boiler 2 plain Material S Outside diameter 3-2 1/2  
 Length of plain part 5-9 Thickness of plates 15 crown 49 bottom 64 Description of longitudinal joint welded No. of strengthening rings Yes  
 Working pressure of furnace by the rules 201 Combustion chamber plates: Material S Thickness: Sides 1 1/16 Back 3/32 Top 3/8 Bottom 1/16  
 Pitch of stays to ditto: Sides 8 1/2 x 8 1/2 Back 8 1/4 x 8 1/4 Top 7 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 202  
 Material of stays S Diameter at smallest part 2.07 Area supported by each stay 72 Working pressure by rules 290 End plates in steam space: Material S Thickness 15/16 Pitch of stays 13 1/2 x 13 How are stays secured Nuts & Ws Working pressure by rules 237 Material of stays S Diameter at smallest part 4.3 Area supported by each stay 175 Working pressure by rules 255 Material of Front plates at bottom S  
 Thickness 15/16 Material of Lower back plate S Thickness 15/16 Greatest pitch of stays 14 x 8 3/8 Working pressure of plate by rules 227  
 Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 1/4 Material of tube plates S Thickness: Front 15/16 Back 7/8 Mean pitch of stays 9 1/2 x 9  
 Pitch across wide water spaces 13 3/4 Working pressures by rules 229 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 1/2 x 1 1/2 Length as per rule 29.875 Distance apart 72 Number and pitch of stays in each 2-8 1/2  
 Working pressure by rules 205 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 casing gear



**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No. \_\_\_\_\_ Description \_\_\_\_\_  
 Made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_  
 Working pressure \_\_\_\_\_ tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of Safety \_\_\_\_\_  
 Valves \_\_\_\_\_ No. of Safety Valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Date of adjustment \_\_\_\_\_  
 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 \_\_\_\_\_ Plates \_\_\_\_\_  
 Working pressure of shell by rules \_\_\_\_\_ 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 \_\_\_\_\_  
 Working pressure of furnace by rules \_\_\_\_\_ Thickness of furnace crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ Stayed by \_\_\_\_\_  
 Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_ Dates of survey \_\_\_\_\_

SPARE GEAR. State the articles supplied:— *Two each top & bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts, one set of feed oblique pump valves, one set of piston springs, a quantity of assorted bolts & nuts. Iron of various sizes.*

The foregoing is a correct description,  
 p. pro CHARLES D. HOLMES & CO. LTD. Manufacturer.

*Arthur Holmes* DIRECTOR

Dates of Survey while building: During progress of work in shops: 1913. Apr 25. Jun 27 July 3. 5. 10. 18. 23. Aug 8. 15. 16. 19. 25. 29. 30. Sep 9. 10. 12. 13. 27  
 During erection on board vessel: Oct. 1.  
 Total No. of visits: 20

Is the approved plan of main boiler forwarded herewith *Rpt 26774*

Dates of Examination of principal parts—Cylinders 8. 8. 13. Slides 8. 8. 13. Covers 15. 8. 13. Pistons 15. 8. 13. Rods 29. 8. 13.  
 Connecting rods 29. 8. 13. Crank shaft 9. 9. 13. Thrust shaft 13. 9. 13. Tunnel shafts ✓ Screw shaft 3. 7. 13. Propeller 3. 7. 13.  
 Stern tube 3. 7. 13. Steam pipes tested 13. 9. 13. Engine and boiler seatings 5. 7. 13. Engines holding down bolts 13. 9. 13.  
 Completion of pumping arrangements 13. 9. 13. Boilers fixed 13. 9. 13. Engines tried under steam 27. 9. 13.  
 Main boiler safety valves adjusted 27. 9. 13. Thickness of adjusting washers PV 7/16" SV 7/16" scant.  
 Material of Crank shaft S. Identification Mark on Do. 1080 Material of Thrust shaft S. Identification Mark on Do. 1080.  
 Material of Tunnel shafts ✓ Identification Marks on Do. 1080. Material of Screw shafts S. Identification Marks on Do. 1080.  
 Material of Steam Pipes Solid drawn Copper. Test pressure 400lbs. hyd. pressure.

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 & workmanship are good. The boiler tested by hydraulic pressure, & with the engines secured on board & tried under steam are now in good and safe working condition, and respectfully submitted as being eligible to be classed, with the notation of +LMC 10. 13. in the Register book.*

It is submitted that this vessel is eligible for THE RECORD, + LMC 10. 13.

*J.W.D.*  
 18/10/13

The amount of Entry Fee .. £ 1 : :  
 Special .. .. £ 8 0 0  
 Donkey Boiler Fee .. .. £ : :  
 Travelling Expenses (if any) £ 4 1 :

When applied for: 17. 10. 13  
 When received: 31/10/13  
*J. S. Mackillop*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUE. OCT 21. 1913  
 Assigned + LMC 10. 13



Certificate (if required) to be sent to...