

# REPORT ON MACHINERY.

No. 30,309.

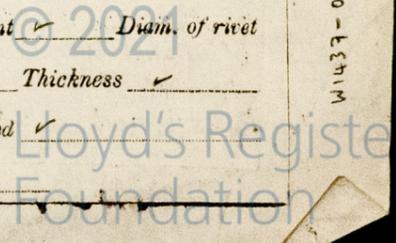
Received at London Office

Date of writing Report 21-12-17 When handed in at Local Office 29-12-17 Port of Hull  
 No. in Survey held at Hull Date, First Survey 13-8-17 Last Survey 29-12-17 19  
 Reg. Book. on the steel screw tug "John. L. Lobs" (Number of visits 34) Gross 324 Tons  
 Master By whom built By whom built Cochrane plans & Co Net 132 Tons  
 Engines made at Hull By whom made Chas. D. Holmes & Co. Ltd (A 5) when made 1917-12  
 Boilers made at Hull By whom made Chas. D. Holmes & Co. Ltd (A 19) when made 1917-12  
 Registered Horse Power Owners British Admiralty Port belonging to  
 Nom. Horse Power as per Section 28 87 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted no

**ENGINES, &c.**—Description of Engines Triple expansion No. of Cylinders Three No. of Cranks 3  
 Dia. of Cylinders 13" - 23" - 37" Length of Stroke 26" Revs. per minute 118 Dia. of Screw shaft 7.9" 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 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 35 1/2"  
 Dia. of Tunnel shaft as per rule 7.04 Dia. of Crank shaft journals as per rule 7.39 Dia. of Crank pin 7 1/2" Size of Crank webs 4 1/2" x 11" Dia. of thrust shaft under collars 7 1/2" Dia. of screw 9 - 7 1/2" Pitch of Screw 11 - 0" No. of Blades 4 State whether moveable no Total surface 33 sq ft  
 No. of Feed pumps one Diameter of ditto 2 3/8" Stroke 14 3/4" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps one Diameter of ditto 2 3/8" Stroke 14 3/4" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines one Sizes of Pumps 6" 4 1/2" x 6" duplex No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room two 2" dia In Holds, &c. one 2" dia in each compartment  
all suction also connected to ejector  
 No. of Bilge Injections one sizes 3 1/2" Connected to condensers 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 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 Forward suction How are they protected strong 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 24-9-17 of Stern Tube 24-9-17 Screw shaft and Propeller 24-9-17  
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from no

**OILERS, &c.**—(Letter for record S) Manufacturers of Steel J. Spence & Sons  
 Total Heating Surface of Boilers 1440 sq ft 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 10-12-17 No. of Certificate 3256  
 Can each boiler be worked separately yes Area of fire grate in each boiler 48 sq ft No. and Description of Safety Valves to each boiler two spring loaded  
 Area of each valve 4.9 sq in Pressure to which they are adjusted 205 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 8" Bl lagged dia. of boilers 165" Length 10'-8" Material of shell plates steel  
 Thickness 1 15/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double  
 long. seams L.R.D.B. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 7/8" Lap of plates or width of butt straps 18"  
 Per centages of strength of longitudinal joint 85.9 Working pressure of shell by rules 202 Size of manhole in shell 16" x 12"  
 Size of compensating ring 7" x 1 15/16" No. and Description of Furnaces in each boiler three plain Material steel Outside diameter 40"  
 Length of plain part top 78 1/2" Thickness of plates bottom 1 13/16" Description of longitudinal joint welded No. of strengthening rings yes  
 Working pressure of furnace by the rules 206 Combustion chamber plates: Material steel Thickness: Sides 3/4" Back 23/32" Top 3/4" Bottom 3/4"  
 Pitch of stays to ditto: Sides 10" x 8" Back 9 3/4" x 8 3/4" Top 11" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 208  
 Material of stays steel Diameter at smallest part 2.07" Area supported by each stay 88 sq in Working pressure by rules 211 End plates in steam space:  
 Material steel Thickness 1 7/32" Pitch of stays 19" x 17 5/8" How are stays secured D. N. & W. Working pressure by rules 210 Material of stays steel  
 Diameter at smallest part 7.5" Area supported by each stay 335 sq in Working pressure by rules 233 Material of Front plates at bottom steel  
 Thickness 1 1/16" Material of Lower back plate steel Thickness 1 1/16" Greatest pitch of stays 13 3/4" x 9 3/8" Working pressure of plate by rules 216  
 Diameter of tubes 3 1/2" Pitch of tubes 4 7/8" Material of tube plates steel Thickness: Front 1 5/16" + 3/16" double Back 7/8" Mean pitch of stays 10"  
 Pitch across wide water spaces 14" Working pressures by rules 275 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 11" x 1 3/4" Length as per rule 36 2/18 Distance apart 11" Number and pitch of stays in each three 8"  
 Working pressure by rules 201 Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler worked separately yes  
 Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivets yes  
 Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes  
 Stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes  
 Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

0110-1311M



IS A DONKEY BOILER FITTED? *No* If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - *Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of air feed valve pump valves, one main & one donkey check valve, two valves for donkey pump, six gunt ring studs & nuts, one safety valve spring, 3 condenser tubes, one set of fire bars, & a quantity of bolts & nuts sizes of various sizes*

The foregoing is a correct description.

*CHARLES D. HOLMES & Co. Ltd.*  
*W. Holmes* Manufacturer.

Dates of Survey while building { During progress of work in shops - - } *1917. - Aug 13, Sep 4, 19, 20, 26, 28, Oct 15, 9, 11, 15, 16, 17, 24, 29, 30, Nov 2, 7, 19, 20, 23, 27, 28, 30,*  
 { During erection on board vessel - - - } *Dec 3, 4, 8, 10, 12, 13, 17, 19, 24, 29,*  
 Total No. of visits *34.* Is the approved plan of main boiler forwarded herewith *dup already sent*

Dates of Examination of principal parts - Cylinders *5-10-17* Slides *24-10-17* Covers *29-10-17* Pistons *24-10-17* Rods *24-10-17*  
 Connecting rods *24-10-17* Crank shaft *17-10-17* Thrust shaft *29-10-17* Tunnel shafts  Screw shaft *19-9-17* Propeller *19-9-17*  
 Stern tube *19-9-17* Steam pipes tested *14-12-17* Engine and boiler seatings *24-9-17* Engines holding down bolts *28-11-17*  
 Completion of pumping arrangements *19-12-17* Boilers fixed *17-12-17* Engines tried under steam *19-12-17*  
 Main boiler safety valves adjusted *17-12-17* Thickness of adjusting washers *7 3/16 @ 5 1/16*

Material of Crank shaft *iron* Identification Mark on Do *2046 FLS* Material of Thrust shaft *steel* Identification Mark on Do *2052 FLS*  
 Material of Tunnel shafts  Identification Marks on Do.  Material of Screw shafts *steel* Identification Marks on Do *2017 FLS*  
 Material of Steam Pipes *solid drawn copper* Test pressure *40 lbs.*  
 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 *yes* If so, state name of vessel *Truce, Class*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel has been constructed under special survey in accordance with the approved plans & the rules of this Society, the materials & workmanship are good. The Boiler & steam pipes have been tested as above & found sound & tight. The machinery has been properly fitted & secured on board & on completion was tested under full power for two hours, as required by the Admiralty, & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 211 lbs.*  
*In my opinion the vessel is eligible for the record & L.M.C. 12, 17*

It is submitted that this vessel is eligible for THE RECORD. + LMC 12.17.

*JWD*  
*SM* 21/18.

The amount of Entry Fee ... £ : :  
 Special ... £ 27: 0 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ 12/3 : 31.12.17

*Frank A. Stanger*  
Engineer & Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute *FRI 4 JAN 1918*  
 Assigned *+ L.M.C. 12.17*



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