

# REPORT ON MACHINERY

No. 30,617  
SAT. 20 JUL. 1918

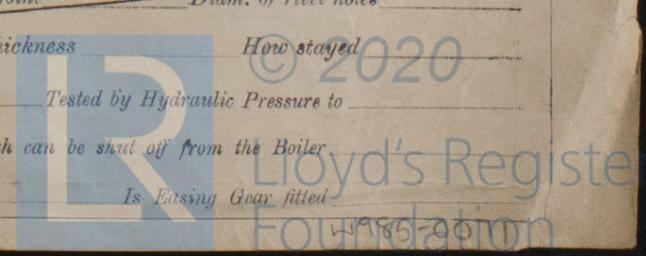
Received at London Office

Date of writing Report 17/7/1918 When handed in at Local Office 17/7/1918 Port of Hull  
 No. in Survey held at Hull Date, First Survey 23. 11. 17 Last Survey 17-7-1918  
 Reg. Book. John Baptistish (Number of Visits 43)  
 Master Beverley Built at Beverley By whom built Cook, Welton & Semmell St. Tons Gross 290 Net 127  
 Engines made at Hull By whom made Amos and Smith Ltd (No 2942) when made 1918  
 Boilers made at Hull By whom made Amos and Smith Ltd (No 2942) when made 1918  
 Registered Horse Power 84 Owners British Admiralty Port belonging to ✓  
 Nom. Horse Power as per Section 28 84 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 12 1/2" - 21" - 35" Length of Stroke 26" Revs. per minute 111 Dia. of Screw shaft as per rule 7.56" Material of screw shaft Iron  
 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 ✓ 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 34"  
 Dia. of Tunnel shaft as per rule 6.54" Dia. of Crank shaft journals as per rule 6.9" Dia. of Crank pin 7 1/8" Size of Crank webs 14" x 4 3/8" Dia. of thrust shaft under collars 7 1/8" Dia. of screw 9-6" Pitch of Screw 11-1 1/2" No. of Blades 4 State whether moveable No Total surface 35 1/2 sq ft  
 No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 2, and 3 ejectors Sizes of Pumps 6" x 3" x 6" and 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room one 2" forward, one 2" aft, & one 2" bilge aft In Holds, &c. one 2" from fore hold, one 2" from slush well, also separate 2" ejector suction from slush well  
 No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump pump 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 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  
 Are that pipes are carried through the bunkers Forward Suctions How are they protected Wood covering  
 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 ✓ Is it fitted with a watertight door ✓ worked from ✓

**BOILERS, &c.**—(Letter for record S) Manufacturers of Steel John Spencer and Son's Limited  
 Total Heating Surface of Boilers 1590 sq ft Is Forced Draft fitted No No. and Description of Boilers one, Single ended  
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 30/5/18 No. of Certificate 3297  
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 48.45 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 185 lbs Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 9 3/4" dia. of boilers 162" Length 10-6 5/8" Material of shell plates Steel  
 Thickness 1/32" Range of tensile strength 28/32 Tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams double  
 g. seams TR DBS Diameter of rivet holes in long. seams 1/32" Pitch of rivets 8" ~~Top of plates~~ or width of butt straps 14"  
 Percentages of strength of longitudinal joint rivets 89.3 Working pressure of shell by rules 180 lbs Size of manhole in shell 16" x 12"  
 Diameter of compensating ring 9" x 1 3/32" No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 40 1/16"  
 Length of plain part top 8 1/2" crown 25 1/2" Description of longitudinal joint Welded No. of strengthening rings ✓  
 bottom 76" Thickness of plates bottom 32" Working pressure of furnace by the rules 188 Combustion chamber plates: Material Steel Thickness: Sides 1 1/16" Back 2 1/32" Top 1 1/16" Bottom 7/8"  
 Distance of stays to ditto: Sides 9 1/2" x 9 3/8" Back 9" x 9" Top 9 1/2" x 9 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181  
 Material of stays Steel Area at smallest part 2.07 sq in Area supported by each stay 90.25 sq in Working pressure by rules 206 End plates in steam space: Material Steel Thickness 1/16" Pitch of stays 14 3/8" x 17" How are stays secured DN & W Working pressure by rules 181 Material of stays Steel  
 Area at smallest part 6.10 sq in Area supported by each stay 295 sq in Working pressure by rules 215 Material of Front plates at bottom Steel  
 Thickness 3 1/32" Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 14" x 9" Working pressure of plate by rules 219  
 Diameter of tubes 3 1/2" Pitch of tubes 5" x 4 3/4" Material of tube plates Steel Thickness: Front 3 1/32" Back 1/8" Mean pitch of stays 10"  
 Distance across wide water spaces 14" Working pressures by rules 184 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/2" x 1 3/4" Length as per rule 32" Distance apart 9 1/2" Number and pitch of stays in each two, 9 1/2"  
 Working pressure by rules 197 Steam dome: description of joint to shell ✓ % of strength of joint ✓

**SUPERHEATER.** Type ✓ Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓  
 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 ✓



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two top end bolts and nuts, two bottom end bolts and nuts, one set of coupling bolts and nuts, two main bearing bolts and nuts, one set of air, feed, and bilge pump valves, one set of piston studs and nuts, three condenser tubes, three boiler tubes, one escape valve spring each side, two donkey pump suction and delivery valves, and a quantity of assorted bolts and nuts, and iron of various sizes*

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

*A. Kachenbury*

Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1917:— Nov 23. Dec. 3. 15. Feb. 1. 15. 21. Mar. 6. 15. 21. 22 Apr. 2. 11. 18. 19. 23. 27. May 2. 8. 15. 22.*  
During erection on board vessel --- *28. 29. 30. Jun. 1. 4. 5. 6. 7. 11. 12. 13. 14. 17. 20. 21. 24. 26. 27 July 3. 6. 10. 12. 17.*  
Total No. of visits *43.*

Is the approved plan of main boiler forwarded herewith *previously sent*

Dates of Examination of principal parts—Cylinders *29/5/18* Slides *29/5/18* Covers *29/5/18* Pistons *29/5/18* Rods *29/5/18*  
Connecting rods *29/5/18* Crank shaft *28/5/18* Thrust shaft *30/5/18* Tunnel shafts  Screw shaft *23/4/18* Propeller *19/4/18*  
Stern tube *19/4/18* Steam pipes tested *21/6/18* Engine and boiler seatings *12/6/18* Engines holding down bolts *24/6/18*  
Completion of pumping arrangements *12/7/18* Boilers fixed *24/6/18* Engines tried under steam *6/7/18*  
Completion of fitting sea connections *19/4/18* Stern tube *19/4/18* Screw shaft and propeller *19/4/18*  
Main boiler safety valves adjusted *6/7/18* Thickness of adjusting washers *P 13/32" S 13/32"*  
Material of Crank shaft *Iron* Identification Mark on Do. *890 JMR* Material of Thrust shaft *Iron* Identification Mark on Do. *188 JMR*  
Material of Tunnel shafts  Identification Marks on Do.  Material of Screw shafts *Iron* Identification Marks on Do. *1891 PF*  
Material of Steam Pipes *S.D. Copper* Test pressure *360 lbs 21/6/18*  
Is an installation fitted for burning oil fuel  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 *Robert Bowen*

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, and the rules of the Society. The materials and workmanship are good. The boiler and steam pipes have been tested as above and found sound and good. The machinery has been properly fitted and secured on board the vessel, and on completion was tested at full power for two hours, as required by the Admiralty and found satisfactory. The safety valves have been adjusted under steam and tested for accumulation which did not exceed 189 lbs*

*In my opinion the vessel is eligible for the record of + LMC 7-18*

*It is submitted that this vessel is eligible for THE RECORD. + LMC 7. 18.*

The amount of Entry Fee	£ 2 : -	When applied for,
Special	£ 26 : 2	17-7 19-18
Donkey Boiler Fee	£ :	When received, <i>ml</i>
Travelling Expenses (if any)	£ :	18/7 19-18

*P. Fitzgerald. John Robertson*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUE 23 JUL 1918*  
Assigned *+ L.M.C. 7:18*

MACHINERY CERTIFICATE WRITTEN



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