

# REPORT ON MACHINERY.

No. 16517

Port of *Hull*

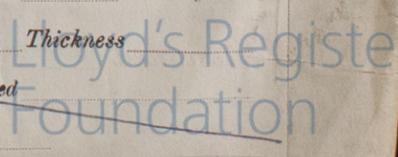
Received at London Office *THUR. 12 JAN 1905*

No. in Survey held at *Hull* Date, first Survey *Sep. 14<sup>th</sup> '04* Last Survey *Jan 3<sup>rd</sup> 1905*  
 Reg. Book. *32 Supp on the* *Sc. K. Bassanio* (Number of Visits *30*)  
 Master *Sc. K. Bassanio* Built at *Beverley* By whom built *Messrs Cook, Welta Gemmell* Tons { Gross *270* Net *94* }  
 Engines made at *Hull* By whom made *Messrs Amos Smith* When built *1905*  
 Boilers made at *Hull* By whom made *Messrs Amos Smith* when made *1905*  
 Registered Horse Power \_\_\_\_\_ Owners *Hallger's Stee. Fishing Co. Ltd* Port belonging to *Hull*  
 Nom. Horse Power as per Section 28 *80* Is Refrigerating Machinery fitted *No* Is Electric Light fitted *No*

**ENGINES, &c.**—Description of Engines *Tri Compound* No. of Cylinders *3* No. of Cranks *3*  
 Dia. of Cylinders *13" - 22" - 36"* Length of Stroke *24"* Revs. per minute *112* Dia. of Screw shaft as per rule *7.45* 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 *One Length* 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 \_\_\_\_\_  
 Dia. of Thrust shaft as per rule *6.78* Dia. of Crank shaft journals as per rule *7.5* Dia. of Crank pin *7.5* Size of Crank webs *12" x 4.5"* Dia. of thrust shaft under collars *7.5* Dia. of screw *8" - 10"* Pitch of screw *11" - 0"* No. of blades *4* State whether moveable *No* Total surface *32 sq*  
 No. of Feed pumps *One* Diameter of ditto *2.5"* Stroke *12"* Can one be overhauled while the other is at work \_\_\_\_\_  
 No. of Bilge pumps *One* Diameter of ditto *2.5"* Stroke *12"* Can one be overhauled while the other is at work \_\_\_\_\_  
 No. of Donkey Engines *Two* Sizes of Pumps *5" x 5" x 5" - 6" x 3" x 6"* No. and size of Suctions connected to both Bilge and Donkey pumps \_\_\_\_\_  
 In Engine Room *Two 2"* In Hold, &c. *One 2" in stokehold* In Holds, &c. *One 2" in each* Fore hold *Fish hold, Fore slush well, after slush well.*  
 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 *Yes 3"*  
 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 suction* 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*  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock *before launching* the screw shaft tunnel watertight *None*  
 Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

**BOILERS, &c.**— (Letter for record *8*) Total Heating Surface of Boiler *1335 sq* Is forced draft fitted *No*  
 No. and Description of Boilers *One cyl. Multi.* Working Pressure *200 lbs* Tested by hydraulic pressure to *400 lbs*  
 Date of test *24. 11. 04* Can each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler *36.6 sq* No. and Description of safety valves to each boiler *Two Spring* Area of each valve *4.91 sq* Pressure to which they are adjusted *205 lbs* Are they fitted with easing gear *Yes*  
 Smallest distance between boilers or uptakes and bunkers or woodwork *7"* Mean dia. of boilers *13" - 0"* Length *10' - 6"* Material of shell plates *Steel*  
 Thickness *1.5"* Range of tensile strength *28 - 32* Are they welded or flanged \_\_\_\_\_ Descrip. of riveting: cir. seams *Lap. Obli long. seams D. B. S. I. R.*  
 Diameter of rivet holes in long. seams *1.5"* Pitch of rivets *8"* Lap of plates or width of butt straps *17.5"*  
 Percentages of strength of longitudinal joint rivets *86.9* Working pressure of shell by rules *202 lbs* Size of manhole in shell *16" x 12"*  
 Size of compensating ring *40" x 30" x 1.5"* No. and Description of Furnaces in each boiler *Two Doughtons* Material *Steel* Outside diameter *3' - 9.5"*  
 Length of plain part top \_\_\_\_\_ bottom \_\_\_\_\_ Thickness of plates crown *3/4"* bottom *3/4"* Description of longitudinal joint *welded* No. of strengthening rings *Doughton*  
 Working pressure of furnace by the rules *276 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *1/16"* Back *1/16"* Top *1/16"* Bottom *1/16"*  
 Pitch of stays to ditto: Sides *8"* Back *7.5"* Top *8"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *255 lbs*  
 Material of stays *Steel* Diameter at smallest part *1.5"* Area supported by each stay *60 sq* Working pressure by rules *236 lbs* End plates in steam space: \_\_\_\_\_  
 Material *Steel* Thickness *1.5"* Pitch of stays *17.5" x 16"* How are stays secured *D. 7. w. s.* Working pressure by rules *213 lbs* Material of stays *Steel*  
 Diameter at smallest part *3.5"* Area supported by each stay *280 sq* Working pressure by rules *257 lbs* Material of Front plates at bottom *Steel*  
 Thickness *3/32* Material of Lower back plate *Steel* Thickness *1"* Greatest pitch of stays *13.5"* Working pressure of plate by rules *200 lbs*  
 Diameter of tubes *3.5"* Pitch of tubes *5"* Material of tube plates *Steel* Thickness: Front *3/32* Back *1/16"* Mean pitch of stays *10"*  
 Pitch across wide water spaces *14"* Working pressures by rules *208 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *9.5" x 2"* Length as per rule *36"* Distance apart *8"* Number and pitch of Stays in each *3 - 7.5"*  
 Working pressure by rules *206 lbs* 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 easing gear \_\_\_\_\_

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?



**DONKEY BOILER**— No. Description  
 Made at By whom made When made Where fixed  
 Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves  
 No. of safety valves Area of each Pressure to which they are adjusted 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 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  
 Thickness of furnace crown plates Stayed by Working pressure of shell by rules  
 Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

**SPARE GEAR.** State the articles supplied:— Two each top and bottom end connecting rod, and main bearing bolts nuts. One set each coupling bolts nuts, sail, circulating, feed and bilge pump valves, and a quantity of bolts, nuts, etc.  
 The foregoing is a correct description,  
 Manufacturer. **FOR AMOS & SMITH**  
*W. S. Hyde*

Dates of Survey while building  
 During progress of work in shops— 1904:— Sep 14. 16. 26. 29. Oct 3. 17. 18. 21. 24. 25  
 During erection on board vessel— Dec 1. 2. 6. 7. 14. 17. 19. 22. 28. 29 1905:— Jan 3.  
 Total No. of visits 30.  
 Is the approved plan of main boiler forwarded herewith **Yes**

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 The machinery and boilers of this vessel have been inspected throughout construction in accordance with the Society's Rules. The materials and workmanship are good. The boiler tested by hydraulic pressure, and with the engines placed on board, and tested under steam. They are now in good order & safe working condition, and respectfully submitted as being eligible in my opinion to be classed with the notification of \* L.M.C. 1.05 in the Register Book.

It is submitted that this vessel is eligible for  
**THE RECORD** L.M.C. 1.05  
*J.S.*  
 12.1.05

Certificate (if required) to be sent to Hull

The amount of Entry Fee.. £ 1 : : : When applied for, 11/11 1905  
 Special .. £ 12 : : :  
 Donkey Boiler Fee .. £ : : :  
 Travelling Expenses (if any) £ : : 2 : : : When received, 31/11 05  
*J. Barclay*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **FRI, JAN 13 1905**  
 Assigned + L.M.C. 1.05

