

Date of writing Report *4<sup>th</sup> May 1915* When handed in at Local Office *15-5* is *15* Port of *Hull*.No. in Survey held at *Hull* Date, First Survey *19-11-14* Last Survey *27-4-1915*Reg. Book. *304up* on the steel Se *"KINGS GREY."* CDH 1029 (Number of Visits *35*) Tons { Gross *338* Net *189* When built *1915*.Master *Beverley* Built at *Beverley* By whom built *Book. Melton & General*Engines made at *Hull* By whom made *C. H. Holmes & Co.* when made *1915*.Boilers made at *Hull* By whom made *C. H. Holmes & Co.* when made *1915*.Registered Horse Power *92* Owners *A. L. Black* Port belonging to *Grimsby*Nom. Horse Power as per Section 28 *92* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*ENGINES, &c.—Description of Engines *Triple Expansion* No. of Cylinders *3* No. of Cranks *3*Dia. of Cylinders *13" 23" 27"* Length of Stroke *26"* Revs. per minute *8.85* Dia. of Screw shaft *8 1/2"* Material of screw shaft *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 tightin 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *yes* If twoliners are fitted, is the shaft lapped or protected between the liners *yes* Length of stern bush *3'-4"*Dia. of Tunnel shaft *7.04"* Dia. of Crank shaft journals *7.39"* Dia. of Crank pin *7 3/4"* Size of Crank web *4 1/2 x 5* Dia. of thrust shaft undercollars *7 3/4"* Dia. of screw *9'-6"* Pitch of Screw *11'-0"* No. of Blades *4* State whether moveable *no* Total surface *325'*No. of Feed pumps *1* Diameter of ditto *3"* Stroke *14 3/4"* Can one be overhauled while the other is at work *yes*No. of Bilge pumps *1* Diameter of ditto *3"* Stroke *14 3/4"* Can one be overhauled while the other is at work *yes*No. of Donkey Engines *Two* Sizes of Pumps *5" x 2 1/4" duplex 6" x 4"* No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room *Two 2"* One forward one aft. In Holds, &c. *Five 2"* Forehold. Main Fish roomaft slushwell, Spare fish room, Forward slushwell. *3" ejector*No. of Bilge Injections *1* sizes *3 1/2"* 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 *Stold 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*Dates of examination of completion of fitting of Sea Connections *1.12.14* of Stern Tube *1.12.14* Screw shaft and Propeller *1.12.14*Is the Screw Shaft Tunnel watertight *yes* Is it fitted with a watertight door *yes* worked from *yes*BOILERS, &c.—(Letter for record *yes*) Manufacturers of Steel *Messrs. Stewart & Lloyd's & Co.*Total Heating Surface of Boilers *1557* Is Forced Draft fitted *no* No. and Description of Boilers *No single ended.*Working Pressure *200 lbs.* Tested by hydraulic pressure to *400 lbs.* Date of test *26-2-15* No. of Certificate *3061*Can each boiler be worked separately *yes* Area of fire grate in each boiler *415'* No. and Description of Safety Valves toeach boiler *2 Spring* Area of each valve *490"* 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 *6"* dia. of boilers *13'-6"* Length *10-8* Material of shell plates *S.*Thickness *1 3/32* Range of tensile strength *28 tons* Are the shell plates welded or flanged *yes* Descrip. of riveting: cir. seams *10R*long. seams *J.R. 10B* Diameter of rivet holes in long. seams *1 3/32* Pitch of rivets *8 1/16* Lap of plates or width of butt straps *17 1/2*Per centages of strength of longitudinal joint *88* Working pressure of shell by rules *201* Size of manhole in shell *16" x 12"*Size of compensating ring *7" x 1 3/32* No. and Description of Furnaces in each boiler *3 plain* Material *S.* Outside diameter *3'-4"*Length of plain part *6'-9"* Thickness of plates *1 3/16* Description of longitudinal joint *welded* No. of strengthening rings *3 1/4*Working pressure of furnace by the rules *203* Combustion chamber plates: Material *S.* Thickness: Sides *3/4"* Back *3/8"* Top *1/2"* Bottom *3/4"*Pitch of stays to ditto: Sides *9x7* Back *9x8 1/2* Top *7x9 1/2* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *230*Material of stays *S.* Diameter at smallest part *2.07* Area supported by each stay *76.5* Working pressure by rules *243* End plates in steam space:Material *S.* Thickness *1 1/4"* Pitch of stays *17 1/2 x 17* How are stays secured *by nuts* Working pressure by rules *248* Material of stays *S.*Diameter at smallest part *7.5* Area supported by each stay *297.5* Working pressure by rules *260* Material of Front plates at bottom *S.*Thickness *1* Material of Lower back plate *S.* Thickness *1* Greatest pitch of stays *13 3/4 x 9* Working pressure of plate by rules *256*Diameter of tubes *3 1/2* Pitch of tubes *5x4 3/4* Material of tube plates *S.* Thickness: Front *1* Back *7/8* Mean pitch of stays *9 3/4*Pitch across wide water spaces *13 3/4* Working pressures by rules *203* Girders to Chamber tops: Material *S.* Depth andthickness of girder at centre *10x1 3/4* Length as per rule *2-9 7/8* Distance apart *9 1/2* Number and pitch of stays in each *30 7/8*Working pressure by rules *215* Superheater or Steam chest; how connected to boiler *yes* Can the superheater be shut off and the boiler workedseparately *yes* Diameter *13 3/4* Length *13 3/4* Thickness of shell plates *1 1/4* Material *S.* Description of longitudinal joint *S.* Diam. of rivetholes *13 3/4* Pitch of rivets *1 1/4* Working pressure of shell by rules *215* Diameter of flue *13 3/4* Material of flue plates *S.* Thickness *1 1/4*If stiffened with rings *yes* Distance between rings *13 3/4* Working pressure by rules *215* End plates: Thickness *1 1/4* How stayed *yes*Working pressure of end plates *215* Area of safety valves to superheater *yes* Are they fitted with easing gear *yes*



IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:—

Two each top & bottom end connecting rod bolt nuts, two main bearing 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,

*Charles D. Holmes & Co. Ltd.*  
*Arthur Holmes*

DIRECTOR

Manufacturer.

Dates of Survey while building

During progress of work in shops --  
During erection on board vessel --  
Total No. of visits

1914: Nov 19. 25. 27. Dec 1. 10. 22. 30. 1915: Jan 5. 7. 15. 20. 27. 28 Feb 2. 4. 11. 16  
19. 23. 25. 26. Mar 1. 8. 11. 12. 18. 24. Apr 7. 8. 12. 17. 21. 22. 24. 27.  
35

Is the approved plan of main boiler forwarded herewith *yes*

Dates of Examination of principal parts—Cylinders 25.2.15. Slides 25.2.15. Covers 11.3.15. Pistons 11.3.15. Rods 11.3.15.  
Connecting rods 11.3.15. Crank shaft 25.2.15. Thrust shaft 25.11.14. Tunnel shafts 25.11.14. Screw shaft 19.11.14. Propeller 19.11.14.  
Stern tube 19.11.14. Steam pipes tested 8.4.15. Engine and boiler seatings 1.12.14. Engines holding down bolts 7.4.15.  
Completion of pumping arrangements 24.4.15. Boilers fixed 7.4.15. Engines tried under steam 17.4.15.  
Main boiler safety valves adjusted 17.4.15. Thickness of adjusting washers PV  $\frac{3}{8}$  SV  $\frac{1}{32}$ .

Material of Crank shaft *S.* Identification Mark on Do. 1436. Material of Thrust shaft *S.* Identification Mark on Do. 6612.

Material of Tunnel shafts *S.* Identification Marks on Do. 6612. Material of Screw shafts *S.* Identification Marks on Do. 1396.

Material of Steam Pipes *Copper solid drawn.* Test pressure *400 lbs. hyd. press.*

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 *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 & started 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 4.15 in the Register book.*

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 4.15.

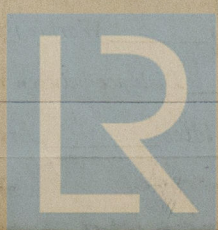
The amount of Entry Fee ... £ 1 : :  
Special ... £ 13 : 16 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : 2 :  
When applied for, 21.5.15  
When received, 31/5/15

Committee's Minute WED. MAY 26. 1915.

Assigned

+ LMC 4.15.

MACHINERY CERTIFICATE  
1915



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Foundation