

REPORT ON MACHINERY.

THUR. DEC 5 1901

Port of *Newcastle*

Received at London Office

No. in Survey held at *Newcastle*
Reg. Book.Date, first Survey *May 2nd 1907* Last Survey *Nov 26th 1907*(Number of Visits *21*.)on the *S.S. KINSMAN*Gross *4533.86*
Tons Net *2965.42*Master *W. H. Mattheu* Built at *Newcastle* By whom built *Armstrong Whitworth & Co* When built *1901-11*Engines made at *Newcastle* By whom made *The Wallsend Shipway & Ltd* when made *1901-11*Boilers made at *Newcastle* By whom made *The Wallsend Shipway & Ltd* when made *1901-11*Registered Horse Power *✓* Owners *Bear Break Oil & Shipping Co Ltd* Port belonging to *Liverpool*Nom. Horse Power as per Section 28 *345* Is Refrigerating Machinery fitted *No* Is Electric Light fitted *Yes*ENGINES, &c.—Description of Engines *Triple (Machinery aft)*No. of Cylinders *3* No. of Cranks *3*Dia. of Cylinders *24" 40" 66"* Length of Stroke *48"* Revs. per minute *70* Dia. of Screw shaft as per rule *14"* as fitted *14 3/4"* Lgth. of stern bush *5' 0"*Dia. of Tunnel shaft as per rule *✓* as fitted *✓* Dia. of Crank shaft journals as per rule *13"* as fitted *13"* Dia. of Crank pin *13"* Size of Crank webs *8 1/2" 20"* Dia. of thrust shaft under collars *13"* Dia. of screw *1 1/2" 3"* Pitch of screw *14" 9"* No. of blades *4* State whether moveable *no* Total surface *94 sq ft*No. of Feed pumps *2* No. of Bilge pumps *2* Diameter of ditto *4"* Stroke *24"* Can one be overhauled while the other is at work *yes*No. of Donkey Engines *2 duplex* Sizes of Pumps *9 1/2" 10" 6 1/2" 6"* No. and size of Suctions connected to both Bilge and Donkey pumps *In Engine Room five 3 1/2"*In Engine Room *five 3 1/2"* In Holds, &c. *Fore hold two 3"*No. of bilge injections *1* sizes *6"* Connected to condenser, or to circulating pump *pump* Is a separate donkey suction fitted in Engine room & size *yes 3 1/2"*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 *none* How are they protected *✓*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 launch* Is the screw shaft tunnel watertight *none*Is it fitted with a watertight door *✓* worked from *✓*BOILERS, &c.—(Letter for record *✓*) Total Heating Surface of Boilers *5570 sq ft* Is forced draft fitted *No*No. and Description of Boilers *3 Mult. Single ended* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs*Date of test *197.01* Can each boiler be worked separately *yes* Area of fire grate in each boiler *57 sq ft* No. and Description of safety valves to each boiler *2 direct spring* Area of each valve *7.06* Pressure to which they are adjusted *185 lbs* Are they fitted with easing gear *yes*Smallest distance between boilers or uptakes and bunkers *26"* Mean dia. of boilers *13-9"* Length *10-6"* Material of shell plates *Steel*Thickness *3/32"* Range of tensile strength *29.32* Are they welded or flanged *no* Descrip. of riveting: cir. seams *lap* long. seams *BS, T.R*Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *7 3/4"* ~~lap of plates~~ width of butt straps *16 5/8"*Percentages of strength of longitudinal joint rivets *87.3* plate *85.4* Working pressure of shell by rules *180 lbs* Size of manhole in shell *16" 12"*Size of compensating ring *9" Neils 6 1/2" 1 1/4"* No. and Description of Furnaces in each boiler *3 Deighton* Material *Steel* Outside diameter *42"*Length of plain part top *✓* bottom *✓* Thickness of plates crown *1/2"* bottom *2"* Description of longitudinal joint *welded* No. of strengthening rings *none*Working pressure of furnace by the rules *180* Combustion chamber plates: Material *Steel* Thickness: Sides *3/32"* Back *3/32"* Top *3/32"* Bottom *3/32"*Pitch of stays to ditto: Sides *9 1/4" x 8 5/8"* Back *9" x 9"* Top *9 1/4" x 8 5/8"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *183 1/2 lbs*Material of stays *Iron* Diameter at smallest part *5/8" 1/6"* Area supported by each stay *81"* Working pressure by rules *188 1/2 lbs* End plates in steam space:Material *Steel* Thickness *1/32"* Pitch of stays *9 1/4" x 18 1/2"* How are stays secured *DNW* Working pressure by rules *181 lbs* Material of stays *Steel*Diameter at smallest part *2 1/2" 3 1/16"* Area supported by each stay *365"* Working pressure by rules *183 1/2 lbs* Material of Front plates at bottom *Steel*Thickness *3/32"* Material of Lower back plate *Steel* Thickness *29"* Greatest pitch of stays *15"* Working pressure of plate by rules *185 1/2 lbs*Diameter of tubes *3 1/4"* Pitch of tubes *4 1/2" 4 1/2"* Material of tube plates *Steel* Thickness: Front *3/32"* Back *3/4"* Mean pitch of stays *9"*Pitch across wide water spaces *13 3/4"* Working pressures by rules *190 lbs* Girders to Chamber tops: Material *Steel* Depth andThickness of girder at centre *8 1/4" 2 1/2" 2 plates* Length as per rule *29"* Distance apart *9 1/4"* Number and pitch of Stays in each *2-8 5/8"*Working pressure by rules *184 1/2 lbs* Superheater or Steam chest; how connected to boiler *none* Can the superheater be shut off and the boiler workedseparately *✓* Diameter *✓* Length *✓* Thickness of shell plates *✓* Material *✓* Description of longitudinal joint *✓* Diam. of rivet*✓* Pitch of rivets *✓* Working pressure of shell by rules *✓* Diameter of flue *✓* Material of flue plates *✓* Thickness *✓*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 *✓*

DONKEY BOILER— No. *none* 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 _____ 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 top & two bottom end bolts, two main bearing bolts, one set coupling bolts, one set feed & bilge pump valves, two sets piston springs, two bottom end braces, one propeller & propeller shaft.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - }
 Total No. of visits *21* Is the approved plan of main boiler forwarded herewith *yes*
 " " " donkey " " " *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.)

Material of screw shaft *Bar 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 *no*
 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 *no, fitted close* If two liners are fitted, is the shaft lapped or protected between the liners *✓*

*The machinery of this vessel has been constructed & fitted on board under special survey the workmanship is sound & good.
 The machinery has been tried under steam as required by the Rules & found to work well the vessel is now in my opinion eligible for the record of +LMC II-01 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. +LMC II-01. Elec. light

The amount of Entry Fee. £ *3* : . : .
 Special . . . £ *32* 5 : . : .
 Donkey Boiler Fee . . . £ . : . : .
 Travelling Expenses (if any) £ . : . : .

When applied for,

When received,

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 6 DEC 1901

Assigned

+LMC II-01



© 2020

Lloyd's Register Foundation

CHIEF ENGINEER CERTIFICATE WRITTEN.

Newcastle M-Syne